THE LANCET.

VOL. II.] LONDON, SATURDAY, AUGUST 14, 1841. [1840-41.

LECTURES
ON
AMPUTATION,
AND ON THE
Nature, Progress, and Terminations of the Injuries for which it is required.

(Delivered at Sydenham Coll. Med. School.)

BY RUTHERFORD ALCOCK, K.C.T., &c.

LECTURE XVIII.

Observations on the relative value of union by first intention and by consecutive process—(continued). First Series of six cases of amputation performed without pre-existing disease or injury of the limb, illustrative of the pure and unmixed effects of the operation by Flap and by Circular Incision. Second Series, showing the influence of immediate union of the Stump upon the progress and issue of the case. Deductions and conclusions. Observations on the first dressing and putting up of stumps, and on the after-treatment, general and local.

I CLOSED the last lecture with some observations, the marked tendency of which, you would perceive, was to call in question the accuracy of the prevailing estimate of the value of union by first intention after amputation. The doctrine, that immediate union of a stump is the highest reward of a surgeon's science and skill, and the best means of insuring a successful issue to the operation, has been handed down from father to son, without inquiry, for so long a period, and been received in England with such implicit faith in its accuracy, that it has scarcely ever been assailed; and to question it now, must seem sad heresy to many of the "grave and learned" of the English profession, albeit they are not unaccustomed in the present day, in common with the rest of the world, to hear all things questioned, all doctrines weighed, and principles rigorously analysed and tested by new facts and processes. As we find examples in morals are more impressive and effective than precepts, so in science facts form the best means of carrying conviction to the mind; and it is by facts that I shall endeavour to demonstrate, and convince you of, the truth of a conclusion directly opposed to the prevailing opinion. This mode of reasoning, supporting each position by facts, is the more imperative on the present occasion, since a proneness to assert the imperfection and error of long-established doctrines and opinions, is one of the most frequent characteristics of the ignorant and the superficial. When assertions tend to impugn the accuracy of any conclusion generally accepted as true, we have a right to exact that such assertions should be based upon facts, and that these also should be brought forward. Although unhesitating assertions denying that "whatever is is best" so frequently spring from empty conceit, it is not the less true that to inquire, examine, and test received opinions, and the bases on which they stand, in order to be satisfied of their truth and freedom from fallacy, is the sure labour of all minds desirous of advancing in any science, and therefore anxious for the truth as the best means of guiding them onward. Thus, again, as I have often had occasion to remark to you, extremes continually meet; where vanity and conceit lead the superficial, at random to assert, and deny, without knowledge or facts;—continued observation and mature reflection not unfrequently lead to the detection of error, and the development of principles adverse to the accuracy of some which may have been long received as true. Both may make startling assertions; but the one dogmatizes, and the other shows the grounds for his opinion. The facts I have to submit have neither been hastily observed and collected, nor brought to bear upon the question of primary and secondary union, in the conclusive form they now assume, without long and patient inquiry into a variety of collateral facts and circumstances requiring mature reflection.

It is now some ten years since I performed my first capital operation; and although for many subsequent years the treatment of injuries in great number and of the most complicated kind, and diseases of every type and degree, incessantly demanded my close attention, I believe I may safely say, that no operation of magnitude was performed from that time, either by myself or under my direc-

tions (numerous as they necessarily were), without the cases being constantly under my observation during their progress, and anxiously watched to the end. Under these circumstances to record all the principal facts, and to weigh them in my mind, comparing the progress and result of one case with another, became not only natural but a necessity; and instead of requiring effort for its continuance, it would assuredly have demanded a considerable effort to refrain. I mention this as a fact, which I trust may prove to you that labour the most continued in the practice of your profession, and in the pursuit of scientific objects, so far from requiring a constant and most irksome effort, is capable of affording in itself the excitement and interest necessary to make its continuance a pleasure. Under such circumstances you will find the truth of an axiom which in the commencement of life we are often inclined to dispute—"*Labor ipse voluptas*"—the apparent toil and application becomes a real pleasure of the highest order, and not willingly exchanged for many of the occupations which bear the name of amusement, but are in truth, and so would seem if called by any other name, wearying in their detail and vapid in the enjoyment.

The first series of facts to which I shall call your attention, are those resulting from six cases of amputation, to assist in determining, 1st, the pure and unmixed effects of the operation on the system; and, 2ndly, the influence of the flap and circular mode of amputation, on the effects of amputation, and on the period of healing of the stumps.

Four cases selected were of men who, months previously, had lost one or both feet from gangrene, attendant on the fever at Vitoria. The feet had been detached at the time by nature's efforts, and the bones had merely the most trifling excoriation over their imperfectly-rounded extremities. The men were healthy, of the respective ages of 19½, 20, and 22 (one of these undergoing, at different periods, amputation of both legs). The fifth case is an amputation of the thigh, which took place in the Westminster Hospital, for congenital contraction of knee-joint, which many of you had an opportunity of watching; and Mr. Williamson, my young friend and pupil here, who kept careful record of the observations of each day, has furnished me with his notes, which I shall use as a running text. The sixth is the case of a man whom I sent to the same hospital for operation, and which you also saw amputated, for an old wound of the knee, long cicatrised, and free from *actire* disease. You will remark that in these six cases the men were all in moderate health, not in the plethoric state of a countryman, or a soldier suddenly levelled by a blow or wound, but accustomed to the air and diet of the hospital, suffering from no recent shock or wasting disease, anxious for the operation, looking forward to it with hope as a means of improving their comfort, and consequently without alarm or moral shock. Whatever action supervened upon these, may most unequivocally be referred to the *operation* as the pure and unmixed *cause*. It is also evident that the relative progress of the flap operation and amputation by circular incision, could not be tested under a greater parity of circumstances and conditions, than the first four cases present.

One of these men had both legs removed; the second limb after the stump of the first had healed: two men had one leg each removed—making four amputations. One was a thin, scrofulous-looking lad (Cases I. and II.); the second (Case IV.) also, apparently, of scrofulous diathesis, but stout—a labourer, of sanguineo-lymphatic temperament; the third (Case III.) was pale, middle-sized, not very muscular, and of lymphatic temperament. The amputations were all performed under precisely the same circumstances: two on the same day; the third within four days; the fourth, at an interval of three months. I operated on two myself. Two healed in the same time, viz., the 42nd day; one on the 52nd day; one on the 57th day. None, therefore, healed by the first intention, although the utmost pains was taken in two to produce such result; and in neither of the cases at the Westminster Hospital was this result obtained.

Of the two performed on the same day, both were removed by the circular incision, at the same point, below the knee: one by myself, and the other by one of the medical staff attached to the hospital. The one healed on the 42nd day, the other on the 57th; a variation of 15 days.

The third patient was operated on, the first time, Sept. 4, 1836, when I removed one leg by the flap below the knee; the second limb was amputated, at the same point, by the circular incision, Dec. 25, of the same year.

The flap operation was healed on the 52nd day, the circular on the 42nd; the average period for the whole being 48 days. In the flap operation, where there was union in the first six days in the greater part of the line of incision, a depôt of matter formed in the face of the stump on the 20th day, requiring an incision to evacuate it.

The principal facts worthy of notice are the following.

Case I.—*Flap Operation (immediate union attempted).*—The patient had been a farm-labourer; he was pale and thin, a scrofulous-looking young man, aged 19½. He stated that he had never been subject to illness in England, but had suffered severely nine months before of a peculiar typhoid fever at *Bribiesca*, in Castile, from which resulted the mortification of both feet, and their separation at the ankle-joints. Subsequent to that period he had enjoyed good health, and been located in different military hospitals. *A little fever and soreness of stump supervened on the first*

day after operation, and continued until the 4th day, when a trifling but healthy suppurative process was established, and the local inflammation and tenderness subsided. A little sloughing of the cellular tissue was observed on the 6th day at the edges, although union had taken place in the greater part of the line of incision. 8th day, all fever had subsided. On the 20th day, a depôt of matter was ascertained to have formed between the flap and the face of the stump, but unaccompanied with any general disturbance or fever. The matter was evacuated by a deep incision. No tendency to secondary hæmorrhage or exfoliation was observed.

Case II.—The same patient. The opposite limb removed at a similar point below the knee, by circular incision. He had enjoyed good health from the period of his former amputation. Immediate union was attempted.

Disturbance, General and Local.—Some hæmorrhage, but to no great extent, a few hours after amputation, and during second day also. Pulse quickened, but soft; stump cool, and free from pain; slept pretty well.

Fourth day. Stump dressed; some adhesions had formed in the middle, between the flaps, and since the previous day a little sanious discharge; no suppuration; very little febrile action. 6th day. Adhesions gave way; stump completely opened; a considerable quantity of sanious discharge, but no great swelling; tongue clean; pulse soft; bowels open; no constitutional disturbance. 8th day. Some sloughs detaching; the stump cleaning; a great deal of fœtid discharge. 9th day. Surface of stump quite clean; granulations vigorous and healthy; general health good; no further symptoms; stump soundly healed on 42nd day.

In this case it may be seen the inflammatory action was almost entirely local.

Case III.—Amputated, September 8th, by circular incision below the knee. A layer of lint interposed.

Disturbance, General and Local.—Although he slept well on the first night, by the next day *diarrhœa, febrile action, and some swelling of stump had supervened*, and during the first few hours a hæmorrhagic tendency shown by some oozing.

Dressed fourth day; lint adhering, and not removed. On the eighth day after operation considerable swelling, and the sides of the wound were separated, and hard. On the ninth, *suppuration began* with healthy pus; *the swelling and pain and febrile disturbance* (which latter had not been very severe) *abated.*

From this date no disturbance, local or general; the suppuration was very trifling, and healthy in character: on the 57th day the stump was quite healed.

Some twelve days later a slight superficial ulceration appeared on the stump, which gradually disappeared; no exfoliation.

Case IV.—On the same day as the above, amputated by circular incision. A stout, scrofulous-looking youth, ætat 20, sanguineo-lymphatic temperament; had been a labourer, and in England always enjoyed good health; had the fever at Vittoria, and subsequent mortification of the toes and portion of the foot of one leg; a slip of lint inserted between the edges of the stump.

Disturbance, General and Local.—Passed a tranquil night; pulse slightly accelerated, but no fever. On 5th day, slip of lint removed. 6th day. Skin hot. 7th day. Stump tender; surrounding parts swelled and painful; leeches and cataplasm. 8th day. Some slight discharge, and restless night. 9th day. Slept well, and did not complain of pain, but discharge still trifling, and much tension, swelling, and inflammation about the neighbourhood of the stump; leeches repeated (24). 10th day. Sensation of weakness; *discharge increasing, and stump less swelled;* from which period he advanced to a favourable cure, without halt or disturbance; suppuration never great; soundly healed on the 42nd day.

Analysis.

What do we observe different in the circular and flap operation on the same man?

In the circular operation there was some trifling hæmorrhage, both first and second day; in the flap none, but *more of soreness of stump and of general fever.*

In the circular, on the fourth day, some adhesions had formed in the middle of the incision, which on the sixth day gave way, and the stump completely opened, giving a sanious discharge, but no febrile disturbance. Some sloughs detached, with much fœtid discharge, and on the ninth day the stump presented clean granulations.

In the flap, a trifling and healthy suppurative discharge was set up by the first dressing, when all local inflammation and tenderness subsided, and a little cellular sloughing on the 6th day, though union had taken place in the greater part of line of incision. 8th day. All disturbance, local or general, had ceased. On the 20th day, matter collected in face of stump, and was pressed from between the flaps and the stump, the former giving a baggy and unhealthy feeling to the touch; evacuated by incision.

In this amputation the whole of the inflammatory actions were local, not general.

Both healed, the circular on the 42nd day, flap 52nd day, and both were excellent stumps.

The ultimate result is the same, the progress only somewhat different. The circular healed eleven days earlier, but exhibited a hæmorrhagic tendency for two days. All action, local, and of inflammatory character, ceased in the flap on the 8th day, in the circular on the 9th day. The local inflammatory action in the flap was the greatest; but the

discharge and action generally was of more unhealthy character for some days in the circular. The febrile disturbance was very slight in the circular, and not obvious at all in the flap.

The deposit or collection of matter in the face of the stump by flap operation, may be safely attributed to the peculiar form of operation, which leaves no ready exit to any suppurative product, if the lower angles at once unite. Thus, unless the flap and surface at once soundly unite, such a collection is a necessary result. If the parts are unsound, therefore, in amputations below the knee, I consider the circular operation preferable, as allowing a readier exit to any matter. But for this collection it seems probable that the flap operation would have healed first instead of last.

Let us turn to the two remaining cases of circular operation, as closely parallel to this as possible, and see if they present similar differences to the flap operation, Nos. 3 and 4. A slight difference existed between these and the former two in dressing, a slip of lint being introduced between the edges of the incisions. The term of local and general disturbance in one may be stated at the tenth day, the other a day later, the eleventh.

In No. 3, hæmorrhagic tendency, diarrhœa, and considerable disturbance, general and local, quickly supervened. In No. 4, no hæmorrhage; pulse a little accelerated, but no fever or local tenderness until the 6th day; and on the 7th day leeches and cataplasm were necessary. 9th day. Swelling and tenderness still, requiring leeches to be repeated; system sympathising, although no high febrile action. From 11th day no disturbance; suppuration moderate. In No. 2, suppuration was rather more tardy. 8th day. Flaps were hard, swelled, and separated. 9th day. Suppuration was established; all the symptoms, local and general, abated, and very shortly disappeared entirely. No. 3 healed on 57th day, No. 4 on 42nd.

Thus we see the hæmorrhagic tendency recurred in one of these. It is also evident that the diseased actions, local and general, were more severe in both than in either of the former, and of somewhat longer duration. Some difference of constitution might have produced this variation, but the interposition of lint between the edges I think a more palpable and obvious cause. In such cases as these, where the parts are sound, this experiment convinced me the practice was injudicious, and calculated to be as mischievous as I think in a modified form decidedly beneficial, where the parts are really in a suppurative condition.

Upon the whole, these four cases must be regarded as full of interest; for here we have the unmixed and unalloyed effects of the mere operation of amputation to study.

Some degree of local inflammation, a tendency to throw off a thin slough in the cellular tissue, and to partial or general suppuration in the stump, is evident in all.

Some acceleration of pulse and febrile action seems also a natural consequence. In No. 4 only a quickened pulse was perceptible until the sixth day, when fever set in simultaneously, with swelling and inflammation of stump.

Neither the local inflammation nor the febrile action seem naturally inclined long to persist if suppuration supervene, and generally altogether disappear within a day or two *after the commencement of suppurative action*, unless this be of unhealthy character, when some little farther delay may be occasioned. The latest period for this healthy state, general and local, is the eleventh day.

Six weeks is about the average period for entire recovery.

It is worthy of remark, that with the febrile exacerbation supervening the first day after amputation in No. 3, there was a marked tendency to diarrhœa, showing how by certain sympathies, due probably to the influence of the nervous system, the mucous membrane of the intestines may be involved in the disturbed action, resulting from the shock of an operation, and the removal of a portion of the body.

These are all the characters present in four of the most favourable subjects for amputation: men previously for months accustomed to the confinement, air, and diet of the hospital; long prepared in mind, and anxious to undergo the operation, having already lost their feet; without, therefore, a *moral* shock (independent of that occasioned by pain, and entirely physical). Some degree of local and general disturbance existed distinctly in all: in two the local action was considerable; in all, the febrile excitement moderate: partial union only took place in the two where immediate was attempted, and one opened out again; while in the other the collection of matter hagging in the stump showed the union had not been complete between the surfaces. Each ultimately healed by aid of the suppurative process. Both local and general actions were of short duration, ten days.

The abatement of all febrile action on the commencement of healthy suppuration may reasonably excite some doubt, as to whether when the shock is greater, as in amputation of the thigh, and under other circumstances, we do wisely in taking every step in our power to prevent any suppuration: the next case, the fifth, in this series, the chief points of which I will recapitulate, from Mr. Williamson's notes, is, if possible, still more conclusive as to the valuable effects of a suppurative process.

John Proctor, ætat. 17, of sanguineo-lymphatic temperament and good health, was admitted into the Westminster Hospital, November 1, 1840, under Mr. Lynn's care, with a congenital contraction of the knee-joint.

He came in for the purpose of having the leg removed, and was most anxious for the operation. Prior to this step a bistoury was introduced beneath the ham-strings, to try the effect of their subcutaneous division. The contraction not being in any way relieved, the leg, a day or two subsequently, was amputated on the 7th, by the circular incision above the knee. Two arteries were secured. The sensorium was visibly affected by the pain; the patient's excitement during the operation was extreme; he talked and shouted incessantly to the surgeon and to those about him. The edges of the stump were brought together to favour union by first intention.

First day after. Febrile action had set in, skin hot; tongue slightly coated; pulse quick, but soft. A purgative was administered, and a saline and diaphoretic mixture, with small doses of liq. opii. sed. ordered. Towards evening the fever increased. 2nd day. Bowels freely purged; skin improved; slept during part of the preceding night, but considerable fever remained; pulse 140; skin hot and dry; some swelling of stump, but no pain; bandages cut. An effervescing saline ordered. 3rd day. Some improvement; the edges of the wound which at first seemed agglutinated together opened on removing the plaster; *surface underneath dry and unhealthy in aspect.* 4th day. Pulse more frequent; tendency to delirium; skin hot and dry; great thirst; no action of bowels. Towards evening he had a violent shivering fit; pulse 140. A teaspoonful of brandy administered, and shortly after he fell into a profuse perspiration, which was succeeded by a cold chill; countenance anxious and pale; skin clammy, and tongue foul; *stump quite dry; great delirium.* Enema ordered. 5th day. Delirium continues; picking the bedclothes (poultice to stump, and fomentations to the thigh); increasing delirium and muttering towards evening. 6th day. Delirium in the morning with dry and hard tongue, but towards noon he improved, when he was ordered a quarter of a grain of morphine, from which he seemed to enjoy some refreshing sleep, and in the morning he awoke cool; a little brandy from time to time had been given; *suppuration of a tolerably healthy character*, and a red blush of stump abating since the previous day, when the suppurative process seemed established. Beef-tea and brandy; calomel and haust. sennæ. 8th day. Slept, but with intervals of delirium; *suppuration arrested; violent pain complained of in the bowels*, relieved by warm fomentations; *pulse 140, very feeble; surface of skin hot and dry; tongue hard and dry*, with circumscribed white coat in the centre; involuntary discharge of fæces during night, of slimy and offensive character; urine scanty, and high coloured. 9th day. Subsultus tendinum; red blush at extremity of stump, but all action seems to have ceased in it; unhealthy aspect of superficial veins and skin up to the groin; respiration short and hurried; roused with difficulty to any consciousness of surrounding objects. Leeches were subsequently ordered to the temples, but he continued sinking, and, with the appearance of much suffering, died in the evening.

On examination after death the femoral vein was traced upwards, and the artery to the heart. The outside of the thigh was in a state of decomposition; the vein presented a suspicious appearance, but not distinctly inflammatory in character; and an imperfect chain of abscesses extended along the sheath of the vessels towards the groin; bone denuded of periosteum; slight vascularity of dura mater; brain firm and healthy; viscera presenting no prominent marks of disease.

This man died, there can be little doubt, from the deleterious impression made by the shock of the operation upon the nervous system, and first upon the centre of the sensorial system rapidly involving the other centres, as shown by the deficient and depraved secretions, absence at first of healthy action in stump, and finally the relaxation of the sphincters. For a moment some suppurative action appeared, with instant relief to all the symptoms; again it ceased, and the patient passing through various stages rapidly sank. An imperfect effort at suppurative depôts existed along the tract of the vessels. The attempt was very judiciously made to promote suppuration after the third day; had it been permanently successful, the patient would, in all probability, have been saved.

In reference to the sixth case of this series, I need not detain you by any longer statement than suffices to tell you that union by first intention was attempted, and did not succeed; suppuration was speedily established, and the supervening febrile action and general or local disturbance was trifling in extent and short in duration. Secondary symptoms of syphilis with a plentiful eruption showed shortly after amputation, and the case was marked by a very long-protracted process of exfoliation. The syphilitic taint did not seem to induce any increased febrile action; whether it exercised any on the healing process or on the exfoliation, I will not stop at present to inquire, but the fact may be worthy of attention and remembrance.

In further elucidation of this question of union by first intention, and the influence of suppurative processes upon the progress and issue of cases of amputation, let us for a moment turn to a series where immediate union, temporary or permanent, *did take place*, and thus seemed to reward the surgeon's efforts.

The first and second of this series to which I shall call your attention, are cases that have been already related to you, one of Lieut. B.,* and Crowther.†

* See Case IV., vol. ii., p. 499.
† See Case II., vol. ii., p. 498.

In the first case you will remember a large collection of matter formed on the outside of the thigh above the agglutinated stump, although cicatrisation had not taken place, yet from the close contact of the surfaces only a very imperfect discharge took place from two or three points: but for the more ample formation of matter above, it seems probable that I should have lost my patient with the irritative fever which was partially developed in the commencement.

The second is the case of a young man, ætat. 20, and precisely parallel as regards the nature of the injury, external circumstances, &c.; but the amputation was performed by flap, and death, instead of recovery, was the result: union by first intention taking place through the greater extent of the incision. I have to recall to your recollection that the febrile action which set in from the first day only abated with the appearance of the discharge, and the establishment of the suppurative stage in a part of the stump not united; that so long as this continued, with even a more copious discharge than seemed desirable, the patient did well; that on the twelfth day the discharge diminished greatly, and as the appearance of suppuration had relieved the febrile action, so the suppression developed the fever anew, and in a fatal degree, destroying the patient the sixteenth day after operation, and the fifth after the arrested suppuration. The stump after death was found healthily united in nearly its whole extent, although the bone was denuded; no recent organic disease was found to account for death.

The third of the series was furnished by a young man, ætat. 18 (Holden), amputated by double flap three hours after the receipt of the wound, a musket-ball lodging in the knee-joint. He had been a sawyer, enjoying generally good health, although he had been attacked with the fever of Vittoria the preceding year.

The stump, on being dressed the third day, seemed united by first intention throughout. 5th day. Febrile disturbance increased, and he passed a bad night; tongue white; stump painful. 6th day. Pain in stump continued, and up to the sixteenth day sleepless nights, much disturbed by pain of stump; after which both stump and general health continued favourable, although the former was tender, and the pulse always more rapid and full than natural. 24th day. A sinus was discovered extending from centre to inner angle; all else healed. An exacerbation of fever on the fiftieth day, and stump seemed likely to open again, with great hardness and pain; these symptoms not subsiding till the sixty-first day, when a sinus and discharge was established; and on the first of the fifth month a large portion of bone, consisting of the extremity of the femur, came away.

The fourth case is that of a young man, Hatchett, ætat. 18, on whom I performed amputation of the forearm by circular incision on the sixteenth day, for a gunshot wound of wrist. 3rd day. Edges united by first intention, but not apparently to the parts beneath. 14th day. Stump swelled, inflamed, and tender; pressure brings thick but well-conditioned matter away; there is evident collection of matter above, but far from the surface. 15th day. Discharge profuse, and not well-conditioned; arm less painful; stump continues much enlarged. 20th day. Slough separating. 26th day. Diarrhœa. 28th day. Better; stump cleaning; considerable loss of substance, and skin and the bones protruding, although abundantly covered in the first instance. The stump for a considerable period remained puffy and tender, collections of matter forming as high as the elbow, and almost entirely surrounding it. These unhealthy actions in various degrees continued to the fourth month, when a shell of the extremity of the radius, about one inch in length, exfoliated, and he was discharged cured the sixth month.

The fifth and last of this series has been already related to you, as a fatal case illustrative of the second form of "*irritative fever*;" it is the case of Simpkins,* ætat. 35; amputation of thigh by flap operation for a gunshot injury of knee-joint within three hours of the receipt of injury.

On the third day the stump was found united; some swelling of the parts, but no fever. On the fourth day the dressings were stained with discharge, and on the seventh day a thick and healthy matter appeared on the edges. The adhesions, however, continued firm, and the edges were well approximated. On the eleventh day the stump became painful, and on the thirteenth day fever was developed. For some days these symptoms abated with careful treatment; but on the twenty-sixth day fever of more aggravated form showed itself, ushered in with well-marked rigors morning and evening, succeeded by perspiration; thin and curdish discharge from a sinus at one angle of the stump having preceded. The symptoms, nevertheless, were not of very urgent character, until within twenty-four hours of his death, which took place by rapid changes on the thirty-second day.†

Viscera found healthy; disease seemed confined to stump, involving soft parts, bone, and femoral vein; internal part of stump was in a state approaching to gangrene; the front and inner muscles emphysematous; *adhesion of stump in the line of incision perfect*, with the exception of two fistulous openings communicating with the bone denuded of periosteum, in patches for four or five inches; femoral vein inflamed.

It seems needless to multiply cases; these are sufficiently illustrative of the facts to

* See Case VIII., vol. ii., p. 501.

† This date was misprinted the *eighty*-second day.

which I wish to draw your attention, although union by first intention has seemed for so long a period the most desirable result; it is an error to imagine that this will secure the patient's safety, or that no accidents, general or local, productive of fatal result, are to be dreaded if such union take place, but that these are reserved for the cases in which suppuration occurs.

As immediate union will not prevent the development of local and general disturbance capable of producing death, so neither will the non-union of the flaps and the production of suppuration prevent the development of equally fatal and often very similar diseases. My object is not, therefore, to advocate the abandonment of treatment (except in the cases already specified) calculated to obtain immediate union, but to correct a very generally-pervading error respecting the *value* and *safety* of this treatment, even in cases fitly adapted for such methods, and thus to diminish the prejudice against any modification of such plan when reason and experience alike point out its propriety.

It is to be observed that there are a series of accidents peculiar to immediate union, certainly not of invariable, but assuredly of very frequent, occurrence; viz., the formation of suppurating purulent deposits, and disease generally, in the limb above, either in the face of the stump beneath the united flaps or edges, or round the bone, and occasionally higher up, beneath the cellular tissue, or effused among the muscles. Nos. 1, 2, 4, and 5, of this last series, are all examples of these effects, long delaying the cure, and by their consequences, general and local, always placing the patient's life in jeopardy.

We have next to remark that in a great number of cases which seem to unite at the first dressing, they partially or entirely open out again, as if by an effort of nature, in an opposite sense to the surgeon's, and a healthy suppuration is established, or diseased surfaces are cleaned in a few days; and with these changes all constitutional disturbance and febrile action (often considerable before) disappear, and the patient proceeds to his cure without a check or doubt,—not so rapidly as if the union by first intention had been permanent and complete, without attending unfavourable actions, but I am bound to believe as *much more safely as the process is more gradual.*

With these two results before us—First, that the union by first intention often, if not generally, takes place at the edges only, or, at least, not extending throughout the whole of the divided surfaces; in which case nature either extensively destroys the adhesions which have taken place, and establishes, with the free vent for matter, a process for ultimate union essentially suppurative and granulating; or, the union being maintained, matter forms behind the closed curtain of the stump, often productive of great mischief, and until a vent, artificial or natural, allows its escape, the patient does not recover, and the occurrence is fraught with danger.

Secondly. That even when the union extends throughout the stump, is firm and maintained, disease of the extremity of the bone frequently results leading to the formation of a sinus, hardness, and unhealthiness of the whole stump; and, lastly, that this union is not even a sure safeguard against the most fatal of local sequences—phlebitis, as is seen in No. 5 of the present series.

These views and facts, I think, all tend to confirm the line of practice I have recommended in regard to the after-treatment of stumps, and prove how exaggerated has been the opinion entertained, in this country especially, *of the value and efficacy of union by the first intention*; it is infinitely more rare than has been usually assumed, and it is by no means free from evil when it does result.

Some degree of local inflammation, intumescence, and tension, together with febrile action, is the usual and the natural result of the stimulus and injury of the operation. The most effectual means nature ever adopts to remove these deleterious effects, if they proceed beyond a certain extent, is by a process of suppuration. This can take place nowhere so beneficially or so easily as in the cut and bruised surfaces of the stump; the instant suppuration fairly commences, the tension, heat, and inflammation of the limb subsides, and quickly disappears, and with it ceases the general excitement and febrile action in the frame. When, by the surgeon's "cunning" art, the edges of the stump are suddenly glued together by the adhesive process, what is the result? Is the patient suddenly well? On the contrary, the fever is often more violent, obstinate, and fatal, unless, by a somewhat perilous effort, of nature she succeeds in bursting the adhesions of the stump, and establishing a plentiful suppuration; or, failing in this, purulent depôts are established in the face of the stump beneath, in the limb above, extensive disease of bone and periosteum, abscesses along the course of the vessels, and finally phlebitis. These are frequently the results, as they are the rewards, of a blind adherence to the established doctrine on the invariable expediency and advantage of immediate union, maintained so long against the most striking and conclusive series of facts that could well be devised to force observation and conviction on men's minds.

Thus, then, I would impress upon you that the gradual healing of the large wound formed by the amputating knife, in some part of its extent at least, is safer than the general adhesion of all the surfaces in twenty-four hours, and without any suppurative process. And, independent of the different modes of dressing and putting up the stump in the first moment, I would strongly recommend you, while you endeavour to keep all

local action within moderate bounds, as cold applications and perfect quiescence of limb and body, to be careful neither, on the one hand, to repress its development so far as to check all suppurative process, nor, on the other, to allow this action to involve the whole limb to such an extent as materially to exasperate the general febrile state.

When the patient's pulse gets up, on the second day or earlier, the limb becoming in some degree swollen, both the state and the changes, in the stump and the system, must be carefully watched. If a moderate action from the bowels and skin, and the application of cold to the stump, do not prevent, on the third day, a greater exacerbation of fever, and the supervention of tension, heat, and pain of stump, the patient's best chance of safety lies in the speedy development of an effective suppurative action. This is to be induced by removing all stricture or compression from the limb, whether by bandages, strapping, or ligatures, lowering the action of the heart by bleeding proportionate to the vigour of the patient, and its *effect* should be carefully watched while the blood is flowing. The bleeding should be effected, if possible, with the patient sitting up, and from a free orifice; the total prostration of strength and relaxation of all the fibres of the body is the object, and not the actual diminution of the quantity of blood circulating. If you produce faintness with the loss of four or six ounces of blood, suddenly abstracted in a full stream, with the patient upright, you will effect not only all the good that would ensue from the loss of sixteen ounces, and accompanied with none of the evil consequences which might follow the abstraction of so large a quantity; but if the larger quantity is not followed by faintness, less good will be effected. Gentle nausea, induced by minute doses of tartar emetic, materially assists the other means, by favouring that general relaxation of the vessels which it is your object to obtain. Other local means, in addition to those I have already indicated, will assist, such as warm fomentations to the stump and limb above, alternating with light warm poultices.

If the shock of the operation has not seriously impaired or vitiated the powers of the nervous centres, deranging the functions of all the more important organs, and depraving the secretions, or shall not have induced a disorganising action in the stump itself, these means I have frequently seen successful in drawing the patient from a state of great jeopardy. The suppurative stage established, and the inflammatory symptoms, general and local, subsiding, this treatment will be no longer persisted in; the limb may be dressed and bandaged again, the edges of the wound approximated, and the surfaces generally and gradually brought into apposition, taking care not to heap lint, bandages, and dressings upon the limb with a profusion only to be equalled by the swaddling-clothes of a baby, or the hundred and fifty wrappers of an Egyptian mummy. Keep the limb cool, an equable pressure round it; the surface of the stump free from irritation, especially the officious irritation of a sponge over its surface, contenting yourself with clearing the outer surface, and with the aid of a little pressure and tepid water removing the *superfluous* discharge that may have collected within the lips of the wound. Add to these local means the measures necessary to ensure a gentle but continued secretion from the skin and bowels, and you will by this simple, but really scientific treatment, if the judicious adaptation of the means to the end be the test, save many of your patients from the supervention of the fatal complicating actions, the causes, progress, and results of which I have brought prominently before you in these lectures, and prevent the development of many of those more obscure local actions terminating in callous sinuses, diseased bone, and tedious exfoliations, which seriously undermine the patient's health, keeping him long weeks on his back, and many additional months under treatment.

Occasionally you will find, instead of the more ordinary tendency to violent inflammatory process in the stump which I have described, a sluggish and altogether inadequate action; no redness, heat, or swelling, the parts remain nearly unchanged; and on removing the dressings on the third or fourth day, the edges will be found ununited, the surfaces pale, flabby, or even dry. Here suppuration is not impeded by the adhesive process, but is rendered impossible by a deficiency of vigour in the parts, and very frequently in the system itself. Stimulants in such a case, local and general, may be required; dressings of the warm aromatic balsams, or of wine warmed and sweetened, applied to the sluggish surfaces, some degree of general support or compression round the limb, and warm aromatic fomentations. These must be seconded by general means modified in relation to the state of the system; the judicious combination of warm purgatives and James's powder with minute doses of mercury, and a light but nourishing food, will not unfrequently be found of great service, and calculated to give that general tone and stimulus to the secretory apparatus throughout the body necessary to the development of a healthy action in the stump.

I had hoped to conclude all the details in this lecture, leaving only one remaining, which I purposed devoting to a *resumé* or summary of the leading facts laid before you in these lectures from the commencement, the more important of the conclusions they authorise, and finally the principles of practice and doctrines they inculcate, pointing out the more prevailing ones to which they are opposed. Before I can thus pass in general review facts, conclusions, and principles of practice, so as to

leave a clear and distinct impression on your minds of the final *results* of the investigations —the observation and the labour of many years—I find it necessary to give up one more lecture to embrace some remaining details connected with the subject into which I have entered this evening, viz., the influence of different modes of amputation, of dressing and after-treatment, upon the progress and results of cases, and thus conclude the parallel commenced between the amputations by flap and by circular incision.

ILLUSTRATIONS OF THE

PATHOLOGY AND TREATMENT OF AMAUROSIS.

By EDWARD HOCKEN, M.D., M.R.C.S.L., &c.

(Continued from page 536.)

PART VIII.

Amaurosis from Hyperæmia of the Visual Nervous System generally.

In this variety of amaurosis the loss of function is dependent on preternatural fulness of the blood-vessels of the visual nervous textures generally: it occurs under different forms, and present diversities both in the local and general symptoms; it may be regarded, in fact, as a generic term (hyperæmial amaurosis), comprehending very different affections, all of them presenting in common either the indications of active or passive hyperæmia of the optic nervous apparatus, with diminution or suppression of the visual powers. This variety of amaurosis, then, is itself divisible into the following forms, viz., active, passive, mechanical, and sympathetic; and these include subdivisions, expressed in the following table:*—

HYPERÆMIAL AMAUROSIS.

1. *Active.*

1st. Absolute or active general plethora.
2nd. Local determination of blood.
  a. From accidental causes.
  b. From hypertrophy of the left ventricle.

2. *Passive.*

1st. Relative or passive plethora, &c.
2nd. Venous congestion (accidental).
3rd. The effect of previous inflammations, injuries, &c.

3. *Mechanical.*

1st. Venous retardation from the pressure of tumours, &c.
2nd. From disease of the heart and great vessels.

4. *Sympathetic.*

1st. Sympathy with connected organs.

Active Hyperæmial Amaurosis from General Plethora.—The term active plethora supposes a condition of the vascular system in which the quantity and quality of the blood are morbidly increased in relative proportion to the containing vessels, and the system generally. During the early continuance of this constitutional condition there is an exuberance of health, denoted by the full, frequent pulse; the free, vigorous capillary circulation; the increased nutrition, and great activity manifested, both in the secreting and excreting organs.

Now, although these excited actions may go on for a considerable time, tending to counteract the injurious influences of repletion on the system, especially if the habits and occupations of the individual favour the sanative efforts of nature; yet sooner or later important organs flag in their functions, or the constitution generally yields beneath a power far superior to its weakened condition; and hence local inflammations, active

* The division here adopted is founded on practical grounds, and not on a mere desire to be minutely correct; for it will be obvious that a wide difference should be made in the treatment of active, passive, and mechanical congestions, and modifications are requisite in the sub-varieties themselves: hence the advantage of considering the cause, and recognising the difference between an active local hyperæmia, dependent on a constitutional cause, viz., active, general plethora, and that originating solely in a local, without any necessary connection with a general, viz., hypertrophy of the left ventricle, and again separating the local effects of pressure from the retarded circulation induced by disease in the heart, or great vessels; whilst local hyperæmiæ, dependent on some manifest disturbance in distant and associated organs, would call for treatment having an especial reference to their derangements, besides the measures adopted for the local congestion itself.

It was from the consideration of the differences requisite in the treatment, and not from the mere differences of the causes themselves, which suggested the foregoing division to my mind; for it will be obvious that a confused account of many different affections, having something in common under one name, must tend to great confusion and perplexities in treatment: and thus affections, the pathology of which is not clearly understood, must require a very confused account of the mode of treatment, a great many exceptions and qualifications to some general rule, in order to adapt them to each particular variety; and although practical men may themselves recognise differences, and use appropriate modifications, yet they are theoretically unacquainted with their own motives, and quite incapable of explaining them to others.

hyperæmias, or general fever, stamp their own peculiar symptoms on the primarily originating constitutional condition itself. It is at this stage that symptoms of cerebral hyperæmia are developed, and amaurosis succeeds, as a consequence of the implication of the visual nervous system in the same morbid actions.

Symptoms.—One of the first symptoms experienced on the commencement of such an attack is severe headach, with heat of head and throbbing of the carotids. The patient complains that the cephalalgia is increased with each pulsation, and decreased in the arterial diastole; gaining this pulsatory character, especially by excitement or motion. It is felt chiefly in the forehead and temples, and is invariably increased by a low position of the head, stimulants, warmth, active exertion, flatulence, or food. It is rarely constant, but occurs in irregular paroxysms, with periods of relief of uncertain duration. During its continuance the preternatural vascularity of the retina is denoted by the sensations of luminous or dark spectra, especially seen from any sudden motion, stooping, or viewing objects from a height; and nothing is more common than for a plethoric individual to experience the sensation of a shower of falling sparks, and to become temporarily amaurotic, on stooping much, even before any other symptoms of an untoward character have developed themselves. With these phenomena the countenance is found flushed, congested, and florid; the head hot, with noises in the ears and beating of the carotids; the patient is drowsy, and indisposed for exertion: the mental faculties diminished, and the intellect incapable of much exercise; whilst the pulse is full, strong, and morbidly frequent.

The amaurotic symptoms are in general developed gradually; but this is not invariable, since, from some exciting cause, a sudden determination of blood to the head may be originated, attended with amaurosis, usually more or less complete. As regards local appearances, we find both eyes invariably affected, although one is usually more amaurotic than its fellow; the textures are sound, but more vascular than natural; and the conjunctiva and sclerotica present several large scarlet trunks ramifying on their surfaces. The eyes themselves may be slightly protruding, and the patient may complain of a sense of throbbing in them. Occasionally, during the commencement of the disease, the patient manifests impatience of light and contracted pupils; but invariably, as vision becomes more and more imperfect, this intolerance passes off, the pupils dilate, and their motions become more and more limited and sluggish.

The very condition we have been describing has been frequently observed in females above the middle period of life, who have lived freely, taken little exercise, and whose habits of life are sedentary. Sir C. M. Clarke* has described the affection when in connection with a mucous discharge from the vagina. These females suddenly become corpulent and plethoric; become weak and debilitated (or rather apparently so), being able to take very little exercise without fatigue, and are readily overcome by any exertion: hence the individual's habits, from being sedentary by choice, become so eventually from necessity, to avoid the inconveniences which would attend much exertion.

In many of these cases the liver undergoes chronic enlargement, attended by a corresponding protrusion of the right side, whilst its functions are diminished, and the fæces voided consequently of a clay or even white colour, with unnatural fœtor, the bowels being proportionately constipated. The mucous discharge from the vagina increases, and menorrhagia is developed. On inquiry, it will be found that the woman has been attacked with fits of giddiness and sleepiness, pain in the head, and *indistinct vision*, such as a waving appearance when the eyes are open, or a sensation of sparks when closed; and, during these attacks, epistaxis producing relief is not uncommon.

Many years may elapse before any danger is apprehended, and then all at once she may be attacked with a fit of apoplexy, or some severe internal hæmorrhage, which may quickly destroy her; or she may become gradually dropsical, and thus at length die. The symptoms are diminished by the catamenial flow, and the mucous discharge is probably in some degree useful: hence, if a check be given to it without employing any means of unloading the blood-vessels, the violence of the symptoms generally increases.

Causes.—In the healthy body the daily introduction of new matters into the circulation is exactly balanced by the requisite expenditure in the performance of the various animal functions; but this is subject to disturbance from a variety of causes. Thus, in many instances plethora is plainly attributable to the quantity and quality of the diet consumed, the free use of malt liquors, or stimulating and exciting drinks, imperfect exercise of the body, lazy or indolent habits, sedentary occupations, &c. (by which the vigour of the circulation, and the usual loss by wear and tear are diminished, and constipation induced), a natural tendency to a corpulent condition; and, lastly, the diminution or suppression of accustomed secretions or discharges, as epistaxis, the hæmorrhoidal flux, the catamenial discharge, or the secretion of large ulcers, which have been accustomed to discharge freely for a considerable time. By one or many of these causes the blood becomes increased abnormally in volume, and

* Diseases of Females, &c., vol. i., p. 316.

in the relative proportion of its nutritive constituents.

Treatment.—When this constitutional condition has proceeded to the development of local hyperæmia and amaurosis, the patient speedily seeks advice, and then our indications for treatment are, first, to remove the constitutional cause, and then to direct attention to the local. General measures must be directed to deplete the vascular system, and to prevent the renewal of repletion, whilst local measures are pursued in adaptation to the condition of the visual nervous system: hence it will be necessary to consider in detail general blood-letting, purging, abstemious diet, and abundant exercise; also local bleedings, cold applications, counter-irritation, and, perhaps, a slight constitutional action of mercury.

General Blood-letting.—In general the indications for abstraction of blood in plethoric amaurosis fall short of a full constitutional action, and we are content to abstract such quantities, and at such intervals, as shall be sufficient to remove the general hyperæmia without inducing syncope. But under certain circumstances, to which I will presently allude, it may be necessary to give the remedy its full constitutional operation, drawing blood until symptoms of faintness commence: should such be the case, the patient should be placed erect, and blood taken from a moderate-sized orifice, and stopped on the decided approach of leipothymia. This gives us the opportunity of deciding the susceptibility of the patient to the loss of blood, it precludes the possibility of abstracting too much or too little (if ordinary care be taken), since the constitutional susceptibility is an excellent index of the proper quantity to be abstracted. It should never be performed in the horizontal position, nor from too small an aperture, since an excessive quantity might be thus removed before syncope was induced: again, never from too large an aperture, because the sudden loss would occasion premature leipothymia; and, lastly, never, according to Dr. M. Hall, when the feet are cold. Blood-letting carried to incipient syncope is indicated in those cases where the head symptoms are so severe as to point out a danger of apoplexy, and I may state that the following symptoms would clearly diagnose such a tendency: severe headach, throbbing, vertigo, noises in the ears, and blindness; violent pulsation of the carotids, and flushing of the countenance; slight attacks of insensibility or incoherence, partial paralysis of the face, epistaxis, and such an aggravation of these symptoms on stooping forwards as indicates a condition not far removed from simple apoplexy, and which would readily pass into such condition on the application of some slight exciting causes. Under these conditions the removal of a large quantity of blood is required to overcome the tolerance of the system to its loss, a tolerance even superior to that induced by acute inflammation of the large serous sacs, or parenchymatous tissues.

The repetition of venesection will be guided here by the same indications as in inflammatory affections; remembering that the system may all at once become extremely intolerant of further loss, when the local hyperæmia has been relieved, and then, if pushed further, that exhaustion may rapidly supervene.

As regards local blood-letting, we may use it as a powerful adjuvant to its general employment, calculated to insure its good effects, and act with especial influence locally during the reduction of the general powers following venesection. But in that stage of plethora in which only moderate general abstraction of blood is requisite to treat the constitutional condition, the hyperæmia of the visual nervous system itself requires the judicious use of local by cupping or leeches. Whatever be the *modus operandi* of local depletion, it acts most powerfully in subduing local congestions, especially when used during that constitutional depression which a larger abstraction originates.

The quantity and frequency of repetition must in all cases depend on the individual peculiarities,—on the age, sex, constitutional powers and idiosyncracies of the patient, with due reference to the violence of the local symptoms; whilst in many the cupping apparatus may be made to fulfil every advantage both of general and local depletion.

Purging.—It will be unnecessary for me to enter at large, here, on the subject of purging: the severity of the head symptoms mainly determining its activity. In ordinary cases of plethoric amaurosis the secretions may be stimulated by mercurials and antimonials, and the bowels kept lax by aloes and colocynth, saline aperients being occasionally alternated.

In *abstemious diet* we possess the means of regulating the quantity of nutritious substance which by digestion shall pass into the circulation, and hence can adapt this to existing circumstances. In *exercise* also we possess the means of keeping up a healthy vigour of the circulation, increasing the secretions, and augmenting the daily necessity of repair. It requires regulation: to be commenced with moderation, but determination, and increased with the increased power of sustaining it without fatigue.

Cold Applications.—The systematic use of these is required only in cases nearly threatening apoplexy. Under ordinary circumstances the head should be kept cool, the hair worn short, and the feet retained warm by the occasional employment of hot and stimulating pediluvia, and warm clothing.

The extent and exact form of *counter-irritation* must be determined by the peculiarities of the case, and the activity of the head symptoms; when these are severe, or the patient comatose, after the free employment

of blood-letting, a large blister may be applied to the back of the neck, or the head shaved and the scalp covered by a blister. In general it is necessary to maintain a more permanent form; and this is best effected by a seton in the nucha, or the use of the potassio-tartrate of antimony ointment, the permanent drain tending to keep the plethoric tendency in check: the occasional use of blisters behind the ears, allowed to heal and then renewed is serviceable.

Mercury.—When the predisposing, exciting, and continuing causes of this form of amaurosis have been removed by the judicious employment of the measures already alluded to, but still imperfection or loss of vision remains, we possess a powerful and most valuable remedy in mercury. The mercury should be used in mild doses, so as gently to affect the constitution, keeping up this condition for the requisite length of time. The action, doses, and choice of preparations are similar to what has been already mentioned under the head of chronic retinitis, and to which I must refer. *

In conclusion, I would remark that many other measures might be indicated in particular cases, and that success frequently depends on the searching out and removal of some complicating derangement, and attention to all measures, however insignificant, which can improve the general health.

In my next paper I will proceed with the other varieties of hyperæmial amaurosis, and with a few illustrations of the subjects discussed.

EMPYEMA CURED BY PARACENTESIS.

To the Editor of THE LANCET.

SIR:—I send you the following case of empyema cured by one operation of paracentesis thoracis, which I consider a very successful one; if you think it sufficiently valuable, I shall be much obliged by your giving it space in your Journal. I am, Sir, your obedient servant,

BELL FLETCHER, M.D.,
Physician to the General Dispensary.
99, New-street, Birmingham,
August 2, 1841.

March 16, 1841. Alexander Lowe, ætat. 20, of spare habit, but up to his present illness in the enjoyment of good health, as the only attack he gives any account of is one of the measles, which he had about five years since, states, that about six weeks since he was seized with violent pain in the chest, particularly in the left side, cough, difficulty of breathing, rigors, thirst, loss of appetite, headach; in fact, with all the symptoms of acute pleuritis, which he attributed to cold. He did not consult any medical gentleman, but merely took simple aperients, as salts, and such like medicines.

Present State.—He is now much emaciated, highly nervous, and has considerable irritative fever, with a pulse of 120 per minute, but very compressible; his countenance is expressive of the greatest anxiety and distress, and he complains of severe shooting pains in the left side of the chest; great debility; dry cough; shortness of breath, which is quick, and becomes very difficult on the least exertion, at times almost threatening suffocation. He is unable to lie on the right side, and is obliged to be supported when in bed by several pillows.

Examination of the Chest.—The left side measures one inch and a half more than the right; the left nipple is half an inch higher than the right. The left side appears enlarged, and the respiratory motions are scarcely perceptible in it, whilst on the right side they appear greater than usual; the heart beats two inches to the right side of the sternum.

On percussion, a dull sound is heard all over the left side, and a very sonorous one on the right side, except anteriorly to the right side of the sternum where the heart beats.

No respiration is heard *on auscultation* in any part of the left side of the chest, but puerile on the right.

The same state existed without any diminution of the urgency of the symptoms, except that the pains complained of were somewhat subdued, although an active treatment, consisting of mercurials, to the extent of affecting the system, purgatives, diuretics, and blistering the left side of the chest, was persevered in up to the 1st of April, when the operation of paracentesis thoracis was performed by my friend, Mr. Wilkes, as the only means of saving the patient from asphyxia. The skin was drawn forcibly upwards so as to form a valvular opening, and an incision made between the sixth and seventh ribs down to near the pleura, in the situation of a line drawn downwards from the middle of the axilla; a flattened oval trocar and canula was then passed into the side, gliding on the upper edge of the seventh rib, the trocar withdrawn, and a compressed Indian-rubber bottle, armed with two stop-cocks, immediately fixed into the canula, so as to prevent, as much as possible, the introduction of air into the cavity of the chest. By frequent applications of the bottle in a compressed state, by means of its elasticity, somewhat more than two quarts of a clear serous fluid of a yellow colour, which coagulated strongly on cooling, was drawn from the chest, especial care being taken during the operation to manage the stop-cocks that no air might enter the chest when removing or reapplying the bottle.

* Vide LANCET, vol. i., 1840-41, p. 42.

On withdrawing the canula, the skin immediately resuming its natural position, closed the opening. The wound was drawn together by adhesive plaster, and a compress and light bandage applied.

During the operation, the falling of the level of the fluid was distinctly traced by the dull sound on percussion being replaced by a sonorous sound, as it receded from the upper parts of the chest, till at length the whole dulness of the side affected was substituted by a clear, tympanitic sound at the lower portion, and by one somewhat less clear, corresponding to that afforded by the opposite side on percussion at the upper portion of the chest, where, on auscultation, air was heard distinctly to enter the large tubes of the lung on inspiration; and the heart evidently approached near to its normal position, beating somewhat to the left side of the middle line of the sternum.

An anodyne was given after the operation, and the patient laid on the right side, which was borne with perfect ease (in order that the fluid which still remained in the chest might not drain through the wound, and so prevent its uniting by first intention); the head was raised only by a single pillow; the patient expressed great relief, and his breathing was much easier.

April 4. The case goes on well from day to day, no symptom of inflammation or other mischief presenting itself. The tympanitic sound on the left side gradually diminishes from above downwards, and is succeeded by what may be called a pulmonary sound on percussion, and the respiratory sounds are heard more extensively.

8. The patient is still progressing towards health; the normal sounds on percussion and the respiratory sounds on auscultation are found to increase in space. The tympanitic sound does not now reach higher than the level of the inferior edge of the sixth rib under the axilla, most of which, if not all, depends upon the position of the stomach. The left side measures one inch less than the right, and the side moves freely in the actions of respiration, and as the left lung resumes its functions, respiration is heard less intense in the right.

11. The tympanitic sound now occupies a space of only about four inches square on the outer side of the situation of the heart, which has resumed its normal position. Healthy sounds on percussion and auscultation are heard generally in other parts of the chest; the respiration which, in the first instance, was bronchial, having taken on its natural vesicular character. The left side of the chest measures half an inch more than on the 8th. The incision is perfectly healed.

17. The patient considers himself quite well, except that occasionally he has slight pains in the anterior parts of the chest; nothing abnormal can be detected on percussion or auscultation, except that at the posterior inferior portion of the chest the sound is rather more dull, and the respiration less audible than usual; in all other parts the state is perfectly normal.

30. The pains complained of were relieved by an anodyne embrocation; the patient is now quite well, and resumes his occupation of fluting plated articles.

May 5. The patient bears his work, which is rather hard, quite well, and is in every respect in good health, and gains flesh fast, but has had some night perspiration, for which I recommended a mixture, containing diluted sulphuric acid, and disulphate of quinine in infusion of roses.

14. Since the 5th he has worked hard, which he bears well; the night sweats are diminished, and he certainly appears in every respect quite well. The state of the chest is the same as on the 17th of April.

At the present time (August 2nd) the patient still goes on well, and says he is in as good health as he ever was in his life.

The medicines that were given during the treatment are not of sufficient importance to mention in detail; the only thing worth mentioning respecting them is, that mercurials were given so as to slightly affect the mouth during the ten days following the operation.

DYSPEPTIC ASTHMA.

To the Editor of THE LANCET.

SIR:—The discovery, by Dr. Marshall Hall, of the reflex action or function of the nerves, will doubtless enable physiologists to explain many phenomena heretofore deemed inexplicable. By reflex action I understand the property possessed by a nerve of transmitting an impression made upon the extremities of one of its branches to the extremities of another branch, whereby an effect is produced on the part to which such impression is conveyed, similar to that which would have followed had the impression been made directly upon the extremities of the branch thus secondarily affected.

The knowledge of the fact that the nerves are endowed with this power, or function, will enable us to understand how it is that the chief pain in disease of the hip-joint is often referred to the knee; and how certain affections of the uterus occasion pain in the back, hips, and lower members, &c. &c.; so the distribution of the branches of the pneumogastric nerve will serve to explain why cough should result from the presence of crude indigestible substances in the stomach. May it not also afford us some assistance in our inquiries concerning the causes and pathology of asthma?

Most of your medical readers must have observed the almost instantaneous effects

which sometimes follow the administration of opium and other medicines in cases of asthma, and which, from their rapidity, must necessarily be produced through the medium of the nervous system; and if a curative effect can be produced on the lungs by an impression made upon the gastric branches of the eighth pair of nerves by a medicinal agent, we cannot reasonably doubt that a morbid impression made on the same branches may, in like manner, occasion morbid effects in the tissues to which the pulmonary branches are distributed.

It is probable that some peculiarity of organisation obtains in the lungs of persons subject to spasmodic asthma, which may be considered the predisposing cause of the affection; but the exciting cause, or that which operates in producing a paroxysm, and which is occasional or accidental, we can perhaps discover and guard against. It is well known that attacks of this affection occur in all states of the atmosphere, whether it be dry, humid, warm, or cold; and that neither of these states render the attacks either more or less prevalent, which is, at least, a negative proof that the exciting cause of paroxysms of spasmodic asthma does not reside in the atmosphere; and unless it can be shown that the direct application to the mucous membrane of the air-passages of particles of some noxious (gaseous or other) matter, will and does produce an asthmatic paroxysm, we may fairly conclude that the exciting cause operates indirectly; and that such is the fact, I have a strong conviction resulting from the close observation of the phenomena attendant upon or constituting this affection, in those cases which have come under my notice. In the case of a gentleman who has been for many years subject to attacks of spasmodic asthma of a very severe character, and for whom I have long been in the habit of occasionally prescribing, the attack has invariably appeared to have been the result of, and occasioned by, errors in diet; if he partook freely either of veal, salted meat, pastry, or various other edibles, an embarrassment of the respiratory functions, to a greater or less degree, usually supervened about half an hour or an hour afterwards; and although many slight attacks of this description passed quickly off, yet they frequently increased in intensity, and terminated in extremely violent paroxysms of spasmodic asthma. The inference drawn from these facts is, that the paroxysms alluded to resulted from a morbid impression made on the gastric branches of the pneumo-gastric nerve, which impression was conveyed through the trunk and pulmonary branches of this nerve to the mucous membrane of the air-passages, where it produced some functional derangement, the effects of which were the phenomena constituting the malady in question. The effect of remedies observed in this case would also lead to the same conclusion; sedatives of various kinds, as the lobelia inflata, morphia, &c., when given, mitigated, in some measure, the severity of the symptoms: the attack, however, rarely, if ever, passed off entirely, until the bowels had been acted upon. The most efficient remedy in this case was an aperient, of which rhubarb and magnesia were the chief ingredients; saline substances being occasionally added, in the more severe paroxysms, to increase the activity of the dose. This gentleman now generally carries in his pocket some compound rhubarb pills, of which he takes one or two in the event of a threatened attack, and often apparently with the decided effect of warding off a paroxysm. I have found aperients equally beneficial in other cases of this affection. Neither drastic purgatives, nor strong doses of saline medicines, usually prove advantageous: nor is venesection (so far as I can judge from the instances in which I have known it practised) productive of present relief or permanent benefit in these cases. As the nature and causes of asthma are confessedly not yet clearly understood, the foregoing observations may possibly possess sufficient interest to obtain a place in the pages of THE LANCET. I am, Sir, respectfully yours,

H. A. ROOPS, M.R.C.S.L.

67, Great Russell-street, Bloomsbury.

BANDAGE FOR FRACTURE OF THE CLAVICLE.

To the Editor of THE LANCET.

SIR:—If the following description of a bandage which I have been for some time past in the practice of using with ease and comfort to the patient in fracture of the clavicle be new, you will oblige me by giving it a place in THE LANCET.

When a case of this fracture presents itself to me (we shall suppose on the right side), I apply, in the first place, a strong circular belt, five inches in width, made of strong linen stuff (ticken), and lined with some soft material, round the upper part of the thorax, embracing it closely, the ends being kept together by small buckles and straps. To this belt behind, on the left side of the vertebral column, the square of the end of a linen roller is stitched, leaving it at such an angle that it shall mount evenly over the left or sound shoulder. It is then continued in front, obliquely over the sternum, passed under the belt, and there pinned or stitched; after which it is made, by two turns from without inwards and backwards, keeping it steadily on the stretch, to take hold of the forearm, that the necessary support may be given to the in-

jured shoulder, so essential throughout the treatment, drawing the arm at the same time sufficiently far upwards and backwards. The roller next leaves the elbow behind to be attached again by pins, or stitches, to the belt, where it crosses it, in its way obliquely upwards, till, overlapping itself, it is carried over the left shoulder, and at length downwards, in front, on a parallel line with the sternum, to be stitched in the same manner as when it first left. I need scarcely add, that the necessary pad of tow, or lint, is placed in the axilla by an assistant, while the forearm is being secured.

The end of a piece of roller is lastly slipped twice round the arm, midway between the shoulder and elbow-joints, and drawn out so as to leave two ends of sufficient length to go round in a parallel line with the belt, to which, at an opposite point, it is secured, several inches along.

The use of this bandage, when carefully applied, in keeping the arm and shoulder completely under control, and thereby expediting the union, must be obvious: while it never, like the other apparatus and bandages I have tried, or seen used, causes fatiguing restraint, or inconvenience, by cutting or abrading the cuticle. The patient can also be allowed much greater liberties in exercise.

If the application of a piece of soap plaster, with or without lint, be required over the fracture, with the view of keeping the ends of the bone in still better apposition, then those can be kept well in their places by a strip or strips of bandage passed over the shoulder, and pinned to the belt before and behind.

Should the principal or oblique bandage slacken during the treatment, this can be at once remedied (and without disturbing the callus), by dividing the roller at some point, and steadily overlapping its ends, while an assistant stands by ready to stitch them to the extent required.

A common sling, such as is used after venesection, may be let fall for the support of the wrist; or if this, from circumstances, be found objectionable, a loop could also be attached in front to the belt for that purpose. I am your obedient servant,

A. W. Murray, Assistant-Surgeon
96th Regiment.

Chatham, July 31, 1841.

ORIGIN OF THE RACES OF MAN.

To the Editor of The Lancet.

Sir:—Having read in your Number for July 31, 1841, a letter signed "Alexander Blyth, Jun.," in which the writer tries to make it appear that mankind have originated from other races besides Adam and Eve as mentioned in Scripture, I have taken the liberty of submitting this for your insertion, if you may deem it worthy.

The most prevalent opinion of the present day, says your correspondent, being in favour of the derivation of mankind from at least three different pairs: he at first attempts to prove it by pronouncing a difference between the skin of the negro and that of the white man; this you have already corrected as being unfounded. I am not a professor of medicine, but can, nevertheless, see that the different colours of the skin are but the effects of living in different climates: it is seen in various portions of the globe that a change of climate produces a change of colour in persons that have emigrated to distant places; and this change of colour is further developed in their children who arrive at maturity still more altered; and in this manner successive generations will effect the greatest contrast as to colour in the same race of people. The Jews are a proof of this, who partake of various degrees of colour, according to the place they inhabit; and upon the coast of Malabar are jet black.

Your correspondent, sir, professes a regard for the Scriptural account, and attempts to make it correspond with his own theory. The Bible, however, is in direct opposition to it: in the first place, the creation of man is an event of such magnitude, that it never would have been passed over unnoticed. Cain's complaining that every one that finds him would slay him is easily accounted for, as before the deluge the life of man was continued for hundreds of years; and Cain seeing no signs of death approaching for a long lapse of years, would foresee that a population would be increasing, while he was an outcast and a vagabond from society, without meaning that such was the case at the time of his complaint, there is no reason to warrant the idea of a population at that time existing. Although the next thing we read of, after his sojourning to the land of Nod, is his having a wife, we do not read the time when he was first united; it may have been a great number of years after the curse was inflicted upon him, when his sisters were arrived at maturity, that we read were born some time afterwards (Gen. chap. 5, verse 4), or there might have been females of age born before Abel, for the birth of females was not recorded like males; but certainly it was a sister. But let us remember that important events are mentioned in Genesis commonly, that must successively have occupied a vast period of time, without any attempt to notice events that have transpired in the interval. Neither can we charge Cain with crime in being united to his sister. As we now exist, born and bred in the midst of myriads, there is a peculiarity that distinguishes our family from all others: nor do we stand in the same position towards them as towards

others, nor regard them with the same feelings as others; and these moral feelings and distinctions must not be done violence to, or else the offender incurs guilt. But we cannot place Cain in this light; he lived a great number of years without ever seeing any but his own family; and all those discriminating and different feelings that we are susceptible of towards others he was unacquainted with: neither could he become sensible of such things, unless his circumstances were altered; he could have no more apprehension of such feelings, than a blind man could of the various tints of a rainbow to whom colour was but a name, without a meaning. Cain might, therefore, be united with a sister, without doing violence to any of those pure feelings and those exalted discriminations that the Creator has placed in the human breast, and for which man is accountable to Him that made him. The whole tenor of Scripture contradicts the idea of man originating from other sources than our first parents, Adam and Eve. The sacred writings include all under sin: all, therefore, are the inheritors of a depraved nature that Adam and his wife possessed after the fall; which would not have been the case if there were another pair created in the image of God: all die, and death came into the world by sin. The death of Christ atones for the sin of the world, and all are invited to accept of it in the gospel terms, and yet Christ only died for the race of Adam. St. Paul says, "As in Adam all die, so in Christ shall all be made alive:" indicating that the way of recovery is open to every one who chooses to come, and yet only the race of Adam is spoken of. The truth is, that many desire to contradict Scripture; but neither in science, nor in searching the records of sacred truth for contradiction, can they be successful. As it is an important subject, above every other, it is hoped that these remarks may be acceptable. I am, Sir, your obedient servant,

J. WRIGHT.

Sherrard-street, Aug. 7, 1841.

ORIGIN OF THE RACES OF MAN.

To the Editor of THE LANCET.

SIR:—The subject of the origin of the different races of mankind contained in your last Number is one of great interest, both historically and philosophically; and should no more able correspondent take it up, I shall feel obliged by your inserting the following arguments upon the subject, from which there is every reason to believe that the literal version of sacred history is explicitly correct.

First, regarding the physical organisation, and leaving the historical record as a summary, there is no variation in the different races of man which cannot be fully explained by analogy as the natural adaptation to external circumstances. The most prominent variation exists in the cranial development of the races; yet this is invariably found to correspond with, and exactly suffice for, the peculiar habits of life. For example, the Jews were the most enlightened nation, and the chosen people of God. Will any man suppose that the present very peculiar organisation of the trading Jew, which so admirably fits him to cope with his civil disabilities, was either necessary or existing in his former exalted state, while we can see that such as have overcome their political and moral disabilities can equal and often excel the people amongst whom they live, as well in mental faculties as in physical organisation? Neither can any one fail to observe the self-evident change which frequently occurs in a single generation, as regards the cranial development of those whose education in abstract science has been neglected. The regions for reflection will bear no proportion to those of perception, which are called out by the daily uses and habits of life.

The argument concerning the immorality and necessary incest in the early propagation from a single pair, arises from a common, and, in my opinion, a mistaken view of the laws of God, which are in no case either arbitrary or unreasonable; that incest should beget a degenerate race, and that the appetite for such intercourse is not implanted in man, argues the benevolent intention of the law: that a deviation from the common taste should, by mankind in general, be looked upon with abhorrence, is equally beneficent. In our own social refinement it is now unlawful for a man to marry the sister of his deceased wife, although the Jews were directed to do so by God himself, if the first died without issue. What were the true motives for this ultra-meddlesome and vexatious piece of legislation is very doubtful; and it is open to the charge of being a presumptuous imputation upon the law of God, since the Christian reformation of the Mosaic law which suffered this case to remain was produced by a greater authority than any Parliament.

It is a mistake to suppose the Bible tells us that Cain, after he was banished, *married* in the land of Nod (see verse 17, chap. 4); nevertheless, the chronology of the first seventeen verses of the fourth chapter of Genesis may fairly be supposed to embrace a long period of years. The appetite for propagation had been strong, in almost unrestricted obedience to the command expressed in chapter 1, verse 28. Who would imagine from the order of detail that Job was contemporary with Moses, or that our Saviour did not commence his ministry till he was thirty years old? No doubt many years elapsed between the 16th and 17th verses of Genesis, chapter 4. It must be

observed that the second chapter of Genesis is a recapitulation of chapter one.

But what is most remarkable, your correspondent has overlooked the flood, as well as the express statement in Genesis, chapter 9, verse 19, "These are the three sons of Noah; and *of them* was the *whole earth* overspread." We have yet to learn that this statement is contradicted by the investigation of the natural history and physical organisation of the various races of man, or that there is a greater difference in the skulls of Sir Isaac Newton and a trading Jew. But whatever *our* social laws and feelings may be, it is plain that there was no divine restriction in the earlier ages of mankind. More than four hundred years after the flood, when incestuous connections could not be necessary, we find Abraham explaining to Abimelech that Sarah his wife is his sister also. "She is the daughter of my father, but not the daughter of my mother; and she became my wife" (see Genesis, chapter 20, verse 12). This is too close a blood relation for our taste and morality. We for the most part prefer women of an opposite temperament to ourselves; that is, a man with dark eyes will usually choose a woman with blue ones, and *vice versâ*. By this means the liabilities of constitution in each are likely to be neutralised. Perhaps the difference was sufficient between the patriarch and his spouse; yet we learn that she was barren (and, therefore, presented her lord with her handmaid) till she was ninety years old, when God blessed her with her son Isaac. Of such connection came the whole seed of Israel. Now, we know that breeding animals on the "in and in system" produces degeneration: our social laws are, therefore, founded in wisdom. I remain, Sir, yours most respectfully,

ROBERT STEVENS.

Kennington Common, July 31, 1841.

ORIGIN OF THE RACES OF MAN.

To the Editor of THE LANCET.

SIR:—The premises which Mr. Blyth has taken and fortified with *such strong, such convincing* proofs, in THE LANCET of last week, may stand firm till Mr. B. advances in his studies from the first chapter to the seventh of Genesis; Mr. B. will then meet with such a deluge of opposing truths, as will overthrow his theory as completely as a storm would overthrow a house without foundation, built upon the sand.

If Mr. B. would but consider that the deluge destroyed every living person, except Noah and his family, he would see at once that he was reduced to the old doctrine, that all races of mankind were derived from one and the same parent.

Let it be granted, for argument sake, that Mr. B. has proved satisfactorily that more than one pair of mortals were created at first by the Deity. What advantage will this concession give to Mr. B., when it can be proved from the Mosaic account that the deluge destroyed every mortal excepting Noah and his family? If Noah was the father of the European—if the negro and European had different progenitors—to whom does Mr. B. give the honour of being the negro progenitor? The negro *may* be, as Lord Monboddo surmised, only a varied species of baboon.

Αληθεια.

*** The writer should know that many most religious men and learned observers have for some time abandoned the opinion, or, rather, the "reading," that the deluge was an universal covering of the earth with water, and upon facts which, regarded as the bases of arguments, appear to be irresistibly conclusive. The Rev. Dr. Pye Smith has recently published an impressive volume on this subject, in which, at the same time, he does not abandon one point of his creed as an evangelical minister, any more than does the Rev. Professor Buckland in announcing his belief that the world was created "countless ages" before the Hebraic date of the world, 1.

THE ORIGIN OF MAN.

To the Editor of THE LANCET.

SIR:—Seeing in THE LANCET of last week, July 31st, some "Remarks on the Origin of the Different Races of Mankind," I am induced to venture my opinion on that subject.

Your correspondent says that a great outcry has been raised with respect to this theory (that the human race was derived from more than two individuals), because it seems to be in opposition to the account which is given us of the creation in the first few chapters of Genesis. Now, allow me to ask, are you quite sure that that account has any relation to the natural creation of man? I confess that the assertion that it has none, is, at first sight, rather startling; though, at the same time, it is one which I fully believe. I have been led to examine this part of the sacred writings very closely, and find in it so many passages which, if taken in their literal sense, contradict each other, as to induce in me the belief that what is generally considered as treating of the creation of the natural world, &c., does, in fact, speak only of spiritual things.

Your correspondent mentions the history of Cain as a proof that the world was

peopled by other means than those with which we believe ourselves to be acquainted, but I consider it as one of the many proofs of the completely spiritual meaning of this part of the Bible. After the murder of Abel by Cain, it is said that the latter was banished from his family by the Almighty, and that a mark was set upon him that no one meeting him should slay him. Who was there to slay him? It is said that Cain "married." Whom could he marry, when there was no woman but Eve mentioned? These objections *might* be removed by the adoption of the opinion that, after the creation of Adam, other human beings were formed in the same miraculous manner; but are we justified in concluding thus? We ought, at least, to have some proofs that it was so; and in a book dictated by the Lord himself, is it probable that, if one part of the history of creation had been revealed, another would have been left unrevealed? Taking this view of the case, where have we any record of the creation? I am aware of none. Now, therefore, is a very extended field opened for research upon a matter of which I believe we are, at present, totally ignorant. I by no means dispute your correspondent's opinion that we were derived from more than two beings, because I believe that the statement of Adam and Eve being the only parents of mankind is purely allegorical. I have intruded these remarks on you, hoping that some one may be induced to give them a little more consideration. I am, Sir, your obedient servant,

VERITAS.

Cheshunt, Herts, Aug. 8, 1841.

DISLOCATION OF THE WRIST.

To the Editor of THE LANCET.

SIR:—As you seem, from the note appended to a case of dislocation of the wrist, contained in your last Number, to wish for further observations on the subject, as a *questio vexata* in the theory of surgery which it is desirable to have settled, I send you the outline of a case which came under my observation only a few weeks back.

On the 29th June last I was requested to visit Mrs. L., the mother of a highly-talented physician of this town, the messenger stating that she had fallen down, put out her wrist, and broken the bone. On my arrival, I found that she had certainly dislocated the radius and ulna, they being thrown forward, and most clearly so, and the carpus, of course, in the opposite direction; but there was no fracture of either radius or ulna. Of this I am quite positive, for I made the examination with the greatest care, for two reasons: one, to satisfy the mind of the lady, the other that I might have no doubt left on my own. The reduction was easily effected, the articulating surfaces came together with a distinct snap, and the motions of the joint were forthwith restored. If you think the case worth publication, it is at your service. I am, Sir, yours, &c.

E. D. L. GILLOTT, M.R.C.S.,
Formerly Lecturer on Anatomy in the Sheffield Medical School.

Sheffield, Aug. 7, 1841.

DISLOCATION OF THE WRIST.

To the Editor of THE LANCET.

SIR:—Perhaps you will allow me to put one spoke in the wheel of controversy on dislocation (?) of the wrist-joint, which your reporter has determined shall stand still; it is to say, that if he reported the case at the North London, now called University College Hospital, by-the-bye, with as much correctness as he has quoted me, I think it would have been better to have saved himself the trouble of the christening, reporting only what he saw. I am, Sir, yours obediently,

BUTLER'S GHOST.

P. S.—It is a painful thing to me to find these two plain lines so constantly misquoted; and I would have corrected your reporter, but that I think he will be none the worse for correcting himself.

DR. HASTINGS' NOTIONS ABOUT THE PRINCIPLE OF REPRESENTATIVE GOVERNMENT.

To the Editor of THE LANCET.

SIR:—Some observations I made at the late meeting of the Provincial Medical and Surgical Association, led to various remarks on the constitution of the council, and to statements so unqualified and inaccurate, that I should have undertaken to correct them, if the hasty expressions and conduct of Dr. Hastings had not made it quite manifest that the members were not called together for discussion. I, therefore, request space in your columns for some statements which might, under other circumstances, have been made at the meeting.

The main object of my remarks was to show that the principle of government by representation insisted upon in the report of the council, could never be effectually applied to the government of the medical corporations, unless that principle was actually, and not nominally, adopted by the association itself in the formation of its own executive. The meeting, however, was assured by Dr. Hastings that the council was elected

strictly on the representative principle; and Mr. Husband, secretary to the local council here, referred to the election of the president and council at York, as a striking instance of the working of the principle. That individual assured the association that he had strict instructions from Dr. Hastings to act on that principle in the management of the election; and so anxious (he stated) was he to follow up those instructions, that as I complained that a circular calling a meeting of the members did not sufficiently express the objects of the meeting, a second was issued: of course nothing could be more obliging.

At the late meeting of the association the three hundred and forty members of council were elected *en masse* by between fifty and sixty members. This proceeding Dr. Hastings defended as being strictly on the representative plan; that is to say, the fifty-three members present represented the twelve hundred absent; thirty of these being among the three hundred and forty nominated, and so electing themselves. So much for Dr. Hastings' notion of "the strictly representative principle." Let us now see how this principle was worked out at York under his own stringent instructions. In July of last year a requisition was got up, requesting the association to hold its next meeting at York, which I signed. A committee of management was appointed, ninety-one signatures were obtained, and on the 15th July the following lithographed circular reached me:—

"York, July 14, 1840.

"Sir:—You are requested to attend a meeting of the requisitionists to the Provincial Medical and Surgical Association, to be held at the dispensary, on Thursday evening next (the 16th), at eight o'clock precisely.

(Signed) "W. D. Husband, Sec."

I did not attend that meeting; but on the morning of the 17th of July I received the following notice; it was lithographed as the former, with some manuscript additions, which I have underlined:—

"York, July 16*th*, 1840.

"Sir:—Your are *particularly* requested to attend *an adjourned* meeting of the requisitionists, &c., to be held at the dispensary, *to-morrow evening*, *Friday* (the 17th), at eight o'clock precisely.

(Signed) "W. D. Husband, Sec."

I attended this second meeting, and found from twelve to fifteen present. It was there stated that as only six or seven had attended the meeting of the previous evening, it was thought proper to adjourn it. The president elect (the present president) and the local council were then nominated.

According to Dr. Hastings' theory, the local council thus elected ought to represent the members or requisitionists of the district. What is the fact? Of the ninety-one signers of the requisition only thirty-seven resided at York, or within seven miles of it; the remaining fifty-four were scattered over the county, the majority being resident from 30 to 40 miles distant. Now, if these out-lying voters had been ever so anxious to take a part in the election of their representatives, they could not have possibly exercised their franchise, as the circular (if sent) would not reach them until the election was over. So much for the council; now for the president. The right of electing the president is vested by the rules and custom of the association in the members resident in the locality in which the coming meeting is to be held. The electors of the present president, then, would be the ninety-one requisitionists—a rather narrow constituency for an association comprising one thousand two hundred and fifty members: the majority of the ninety-one were also new members; but better still, the Hastings'representative principle worked, under the discoverer's strict instructions, reduces the ninety-one to thirty-seven; and of these thirty-seven, fewer than twenty proceeded to the election at less than twenty-four hours' notice. Undeniably this is another admirable example of the working of the representative principle. But is this the plan upon which the reformed medical corporations are to be governed? Is this such an exhibition of the representative principle as the members of the association would wish to have displayed in an incorporated faculty? Are we to have the president and council of that faculty elected after the Hastings' method? If so, "the corporations" ought to make a standing joke of Dr. Hastings and his reform principles.

I cannot give our local *secretary* (as he is called) credit for that intense anxiety to adopt the representative principle, or for that condescending deference to my objections which he professed at the meeting. When he stated that the first circular *insufficiently* expressed the business upon which the requisitionists were called together, he must, I think, have known that it *was not expressed at all*, and he ought not to have placed me under the unpleasant necessity of contradicting him; or when he asserted that the second was issued calling an adjourned meeting *because I* objected to the first circular, he must surely have been aware that the assertion was incorrect.

I have in vain attempted to trace in the association the working of a strictly representative principle, in the usual meaning of the term. There is, however, a principle of this kind evidently governing that large body. If we suppose that Dr. Hastings is himself the association, and that the various officers represent him, we shall find how congruous the whole proceedings, both seen and unseen, are with this novel principle of

representative government, and of which Dr. Hastings may fairly claim the paternity. I am, Sir, your obedient servant,

T. Laycock, M.D.

York, August 9, 1841.

MIDDLESEX HOSPITAL.

PENETRATING WOUND OF THE CHEST.

James Maxwell, aged 33, was admitted, under Mr. Arnott, in the afternoon of the 10th of July, having, about half an hour previously, received a stab in the back.

He was brought to the hospital by two of his comrades, cabmen, who witnessed the injury, and of which they gave the following account. Whilst seated at a table with his elbow leaning upon it, Maxwell's wife approached from behind and stabbed him forcibly with a dessert-knife, which remained sticking in his back, and she ran out of the room. It was so firmly fixed, that it required two or three hard pulls to withdraw it. It seemed to have been directed straight inwards, not slantingly. The blade of the knife, which the men brought with them, measured nearly five inches in length, and within less than an inch of the handle was a well-defined line of bloody stain; from this line to the point, the blade was marked by the appearance of dried blood; a notch was observed on the edge about two and a half inches from the point. Some blood followed the removal of the knife; and the man who withdrew it, observed some bubbles of air passing out of the wound at the same time: a circumstance which was also noticed, on the patient's admission, by the house-surgeon when he examined the wound. Much pain had not been experienced, and the somewhat hurried breathing which existed on the patient's entrance, seemed, like the cold skin and feeble pulse, to be owing to the mental shock: for after a time it ceased, and excepting when asked to make a full inspiration, respiration was calm and undisturbed. The attempt to fill the chest fully, however, was interrupted before its completion by a certain check, which was also felt in speaking; but in neither case was cough produced by the attempt. No blood had been spat up, but a moderate quantity had flowed from the external wound. This was situated on the posterior part of the chest over the left scapula, immediately below its spine, and within an inch of the base of the bone. On placing the arms in the position they occupied, when the injury was received, it was evident that the knife must have passed through the scapula; and on separating the lips of the wound, an aperture in that bone was seen. Slight traces of emphysema existed in the immediate vicinity of the wound in the skin. The patient was supported by a bed-chair, breathing being easier in the sitting posture, with the head inclined forwards, than in the horizontal, and silence enjoined. For three hours after his admission, nothing further was judged necessary. At the expiration of this period, the skin had acquired its natural warmth; the pulse some fulness and power; there was rather more uneasiness in taking a deep breath; and the stethoscope discovered crepitation in the left lung, that corresponding to the wounded side. He was ordered to be bled. Eighteen ounces were taken, when he became very faint. To have half a drachm of the compound jalap powder directly, and to be placed on low diet.

Half-past 10, P.M. Is tranquil; pulse of the natural frequency, and weak; in less pain; bowels have not acted; some emphysematous crepitation between the wound and the spine. To have a compound senna draught directly; and when the bowels have been moved, to take two grains of calomel every four hours, and between each dose of this to have a saline draught, containing a drachm of antimony wine.

July 11, 8, A.M. Has been restless during the night, without any attacks of laboured breathing. He states that he now feels better, but he cannot elevate his voice. When he attempts a long breath, he experiences interruption and pain in the left side. His countenance expresses anxiety, and his nostrils have more action than they ought. Pulse 95, small and hard; bowels have been opened several times. Was bled again to sixteen ounces, and had a quarter of a grain of opium added to each dose of the calomel.

Five, P.M. and ten, P.M. No material change; blood taken shows no buff. To continue his medicines.

12. Has slept for several hours; breathes with more freedom on a full inspiration, but the ear distinguishes crepitation in the left lung; gums slightly tender; pulse 110. Was again bled to fourteen ounces. To continue the mixture and calomel without the opium.

13. Has passed a comfortable night; no crepitation can now be heard in the lung; pulse 110; bowels have acted twice; mouth very sore; wound suppurating. Omit the calomel; continue the mixture, with a drachm of antimony wine, every four hours.

14. Passed a good night; fills his chest nearly before he experiences the check; is still obliged to maintain the upright position; the countenance and expression good; pulse still frequent.

19. Has gone on favourably since the last report; can now quite fill his chest; pulse still more frequent than natural, but soft and easily compressed; bowels act regularly; can sleep without the bed-chair; the

wound in the back granulating; soup diet.

25. The patient is dressed, and with the exception of the wound over the scapula not having yet cicatrised, and that the pulse is more frequent than natural, may be considered well. Meat diet.

August 8. Has continued improving since last report.

In answer to some inquiries of the pupils, Mr. Arnott stated, that he had no doubt that the lung was wounded in this case, although no blood had been coughed up; that this did not necessarily take place when the surface or edges of the organ, more especially, had been wounded, and the wound, moreover, a punctured one.

The presence of bloody sputa depended in these cases, in a great measure, on the size of the bronchial tube, or tubes, opened, and there not being a ready discharge for the blood from the surface of the lung into the cavity of the chest. In the case of a punctured wound, too, the blood extravasated into the cellular tissue of the lung, converted the part into a condition similar to that in pulmonary apoplexy, where the smaller bronchial tubes and air-cells are compressed, and where, if blood is expectorated, it is in small quantity.

Mr. Arnott further observed, that it would be noticed in this case, that the increased frequency of pulse continued after the other symptoms had ceased. This circumstance always deserved attention, but where, as in this instance, it was not accompanied by other symptoms, it did not merit undue importance. Here, notwithstanding its continuance, soup, and afterwards meat diet, had been allowed, when deemed requisite, and without any bad result.

SECTION E.—MEDICAL SCIENCE.

President—Dr. Roget.

Vice-Presidents—Dr. P. Miller and Sir D. Dickson.

Secretaries—Dr. J. Butter, Mr. J. Fuge, and Dr. R. S. Sargent.

Committee—Mr. S. Derry, Drs. Hodgkin, Saunders, Armstrong, and Davie, Professors J. B. C. Williams, Sharpey, and Harrison.

This Section has hitherto derived its principal interest and more important papers from the zeal and scientific acquirements of the local members. What then will be inferred as to the state of medical science in the west of England, when we record that the Section met on Thursday and Friday, and were compelled to adjourn, not a single paper having been presented to the secretaries?—[Report in "Athenæum," Aug. 6, of Proceedings of British Association for the Advancement of Science, July 29, 30.]

THE LANCET.

London, Saturday, August 14, 1841.

THAT mesmerism is a delusion, and that the experiments are *tricks*, has been irrefutably established, by the investigations of the French commissions, and by the series of experiments performed by the Editor of this Journal, and republished in the last number of THE LANCET. All that remains to be done is to *explain* the manner in which the tricks have been performed, and how a certain number of persons have been deceived. It is with this view only that we refer again to M. GERDY's paper.

The mesmerists pretend to see without the use of their eyes. The trick is performed in two ways: in the cases described by M. ROSTAN, the young lady received preconcerted intimations from some of the students, who waggishly, but very blameably, amused themselves by practising this piece of deception on the professor; who passed for a great sceptic in religion and the supernatural sciences. To guard against fallacies of this kind, the experiments should be performed in the absence of suspicious persons and of the magnetic professors, who appear, however, to have been present in all the experiments hitherto published, and to have been in contact with, or in the immediate vicinity of their pupils. The more common mode is to close the eyes imperfectly, so that the somnambulists can see either under, over, or at the sides of the apparatus. This was discovered to have been the case in the competitors for the BURDIN prize. Mademoiselle PRUDENCE made more noise in Paris than any of the *clear-sighted* somnambulists; and as FRAPPART declared her to be the most distinguished of the class, M. GERDY took the trouble to investigate her performances. She was thrown into the (assumed) state of somnambulism, and her eyes were covered with a piece of leather (*peau*) inclosed in strips of court-plaster (*taffetas gommé*), previously dipped in water

She tried, in the course of ten minutes, to play at cards. M. GERDY did not perceive any movement of the eyelids; the cards were held near her eyes, and in the course of half an hour she succeeded in naming some of them correctly, even when the light was dim. She also read, and performed other visual feats, which excited considerable surprise in some of the spectators. M. GERDY witnessed two exhibitions. He showed FRAPPART, and the other gentlemen present, that as the plasters dried, they curled up at the circumference, and separated at several points. To this it was replied, that as there were several layers of plaster, the internal strips would effectually close the eyes. The apparent success of the experiments induced M. GERDY to repeat them on himself and his friends. The sun can be distinctly seen through the smallest pinhole in a card, and M. GERDY found that he could read through a card perforated with almost imperceptible holes. He pointed this out to one of his friends (M. C.) who happened to call on him at the time, and had been present at FRAPPART's experiments: this gentleman (M. C.) said he would suffer his eyes to be closed with the plaster, and was induced one day, by the opposition of a warm partisan of mesmerism, to submit to the process. The believer in mesmerism, who was a journalist of some note, closed one of M. C.'s eyes with his hand; and the other was covered, just as Mademoiselle PRUDENCE's had been. The cards were held before his eyes, and he named them correctly. He said that he saw very distinctly; the light entered from above, from below, and from the internal angle of the eye, through the openings of the plasters, and through the tissue of the plaster itself, round the edges of the leather. When the opake plaster is dipped in water, the isinglass is removed, and the silk becomes transparent. M. C. amused himself by passing for a somnambulist among his friends; and ascertained that the slightest movement of the eyelids produced apertures, invisible exteriorly, but admitting light enough to play at cards, or to read by.

FRAPPART addressed another letter to M. GERDY, in May last; "for FRAPPART "sleeps less than his somnambulists, if that "be possible." He wished M. GERDY to convert him; and to tempt him a last time sent him a leaden mask by a messenger, with a note containing this passage—"Despite "this mask, luted with potter's clay, PRU- "DENCE sees, though her eyes be also me- "chanically closed with court-plaster."

M. GERDY performed a great number of experiments; and determined the circumstances, whether in the bandages or the formation of the eyes, most favourable to the success of the deception of *clairvoyance*; which forms to this day a main pillar of mesmerism. He applied, for instance, the cotton pads, with a large handkerchief passed twice round the head, and tied over the eyes. He could see nothing at first. But by imitating the example of his "illustrious master," CALLYSTE, opening and shutting the eyes with violence, and flexing and extending the head, the bandage was loosened, and lowered a little—but imperceptibly; his eyes appeared perfectly covered to a distinguished naval officer who was present, yet M. GERDY saw the books on the shelves of his library, pointed them out, read the titles, and read passages from books.

M. GERDY notices the discrepancy between the modest professions of the mesmerists in the presence of men of science, and the impudent mendacity of their public advertisements; in addressing the learned they represent *clairvoyance* as a peculiar phenomenon that can only be achieved under special circumstances; while they boast to the world that their somnambulists can see through opake bodies, and penetrate the structure of their internal organs. The promises of the mesmerists, and the performances of their pupils, are in the inverse ratio of the intelligence and discrimination of the spectators. Thus, Mademoiselle PRUDENCE, who cut such a poor figure at Paris, in M. GERDY's experiments, has latterly astounded the natives of Troyes. In the state of somnambulism she *saw*—and described with surprising

accuracy—the interior of houses, which she had never seen before. For instance, she "*saw* in the apartment of a young gentleman, "upon his writing-desk, something like cloth; "no, something finer—much finer—flowers, "&c. &c."!! Such is the science of mesmerism!

Derangements, Primary and Reflex, of the Organs of Digestion. By ROBERT DICK, M.D. Edinburgh: Maclachlan. 1840.

THIS is an elaborate work on digestion, half addressed to the profession and half to patients. It has been compiled with great care, labour, and thought, and does credit to the author's studious diligence.

The work is divided into four parts, of which the first contains the causes; the second, the symptoms; the third, the nature; the fourth, the treatment of indigestion. The following plan is closely observed throughout each of these divisions; namely, of directing attention, in the first instance, to the causes which produce, the symptoms which indicate, and the treatment required by indigestion, while still confined to the stomach and intestines; remoter organs, as the heart, lungs, cerebro-spinal and cerebro-sensal systems, and the skin, not being, as yet, secondarily implicated. The symptoms which manifest themselves as each or all of the organs now named, are singly or conjointly complicated, in morbid sympathy, with the original disease, and the treatment which is required by this complication are *next* fully detailed. Then, in the third place, *symptomatic* indigestion is discoursed of; namely, indigestion, in *its* turn secondarily springing from disease *originating* in the skin, cerebro-spinal and cerebro-sensal organs, heart, lungs, respectively; this mode of its causation is pointed out, and the plan of its treatment.

The principles and treatment laid down in the work are illustrated by important cases.

The work is, in the strictest sense, practical and professional, and great care has been taken to point out the very diversified manner in which both moral and physical agencies may produce derangement of the digestive organs; and an attempt has been made to fill up this defect in several otherwise eminent works on the same subject; namely, the want of a clear physiological statement of the manner in which indigestion involves, secondarily, the important vital organs already referred to. Accordingly the word "sympathy" has been very little employed as an explanatory term; but the utmost pains have been taken throughout the work, by explanations, at once plain and minute, to show the channels, nervous, vascular, and others, by which digestive disease is propagated; or, rather, by which the effects of digestive disease are experienced in distant organs and parts. Many practitioners are perplexed all their lives, are rendered irresolute in treatment, and may be said to be continually working in the dark, in consequence of their vague notions as to *how* indigestion produces derangement in the heart, lungs, brain, &c. To such persons, as full an account as our present knowledge admits, of these morbid relations must be acceptable: such an account is here given in a minute, but, at the same time, in the most concise manner possible.

The author throughout the work has set himself unqualifiedly to discountenance the preference now entertained both by many practitioners and the public, for animal and farinaceous diet, in digestive derangements. He shows that while the use of bulky and flatulent vegetables, as cabbages, turnips, &c., are not always advisable in this class of complaints, yet that the use of such fruits and vegetables, as grapes, pomegranates, apples, pears, oranges, strawberries, cherries, lettuces, celery, rhubarb, &c., is, on the other hand, not only innocent, but absolutely indispensable for the thorough cure of the greater part of derangements of the stomach and bowels; that, under their use, these organs may be ameliorated in a degree in which, without that use, and by medicines alone, they could never be; that, thereby, regular and healthy evacuations, otherwise unattainable, may be procured, and, what is of vast importance, that a multitude of those unpleasant and intractable symptoms called "*nervous*" will vanish under the employment of vegetable diet, such as is specified in the work, and used with the cautions there laid down.

We have always considered moderate quantities of ripe fruit, "taken in season," like the apostle's wine, for the stomach's sake, beneficial; and are quite confident

that the routine arguments against fruit rest on no solid foundation. Hence we agree with many of the remarks of Dr. Dick, who has evidently made the effects of "herbaceous aliment" the subject of attentive observation.

"It is amazing what an efficient means of cure in some forms of the more hyperæmic and sub-inflammatory states of the mucous membrane of the digestive organs, the mere adoption of an herbaceous diet is. I have confirmed, by reiterated experiment, the remarks which I have made on this subject in pages 80, 81, 82, of my Treatise on Diet. The beneficial operation of such a diet seems to be less mysterious and difficult of explanation than we might at first suppose, and appears to depend, in no small degree, on its simply cooling or refrigerant effect on the heated and hypervascular digestive surfaces. I find a rasped cucumber to be one of the most effectual checks of the milder cutaneous phlegmonous states. I infer that herbaceous aliment, taken cold and raw, operates in an analogous manner on the mucous membrane of the stomach. If an error is committed in regard to the form of gastric derangement, in which such a diet is appropriate, harm will follow. If the diagnosis have been just, the effect of such a diet is strikingly efficacious. In hyperæmic and heated and sub-inflamed states of the mucous digestive surfaces coexistent with *systematic* plethora, an herbaceous diet is indicated, on account of its being so sparingly replenished with the materials for furnishing a stimulant chyle; but, as I have already noticed, its direct refrigerant effect on the digestive surfaces is by no means to be overlooked. Nor am I able to understand the grounds of that blind and indiscriminate interdiction of all vegetable food, especially of its herbaceous variety, which a multitude of physicians permanently enforce, in every case whatever, of stomachic complaint. My own experience has led me entirely to lay aside the apprehension which I formerly entertained on this subject. A ripe American apple, well masticated, the juice of oranges, grapes, and the pomegranate; strawberries, cherries, ripe and juicy pears, and lemon-juice; and the leaves of the sorrel (rumex acetosa), have all, in their turns, been employed by me as auxiliaries, and occasionally as principals, in the treatment of the irritative and hyperæmic forms of gastric derangement. Besides, as I have remarked in the work already referred to, that the judicious employment of this diet gives a healthy character to the blood, and allays many anomalous nervous symptoms, it most sensibly abates that uncomfortable heat of stomach which many persons, labouring under certain forms and stages of gastric disorder, complain of, and produces a feeling of coolness and relief in that organ to which they may have been long strangers. The best time to employ this aliment is in the interval of the usual meals; as, for example, before breakfast, and about an hour after mid-day. A ripe American apple, or two or three dozen of grapes, or two or three oranges, or part of a pomegranate, taken at these times, act as valuable reducents of the *chaleur, douleur, rougeur, tumeur* of the gastric mucous membrane.

"The only inconveniences to be guarded against, on the first adoption of such a diet by persons long improperly disused to it, are flatulence and intestinal obstruction and accumulation. A little soda and ginger will obviate, according as the emergency requires, the former mishap. The latter is to be prevented by making the change very gradually, by careful mastication, and by a sparing use, for some time, of the herbaceous articles; or, if it occur in spite of these precautions, by a judicious use of a pill composed of aloes, capsicum, and quinine. Persistence in the use of herbaceous aliment will teach the stomach duly to digest, and the bowels to evacuate it; while, as I have already stated, a multitude of nervous symptoms will vanish under its employment; an unwonted feeling of vigour and freshness will pervade the frame; the colour will improve, and the state of the stomach and intestines will be sensibly improved. I know of no malady of the organs of digestion in which a prolonged abstinence from herbaceous articles of food is judicious, or even safe. From such abstinence, on the contrary, I have witnessed the worst effects—foul tongue; ill-tasted mouth; ill-odoured breath; perspiration of a heavy, animal smell; blotched skin; scanty, red, turbid, alkaline urine; and stools insupportably fœtid."

Finally, while a slight inspection of the work will make it plainly appear that the author has throughout exercised his own judgment, and that his statements and directions are ever the results of his own professional experience and observation, or are modified by these, the work contains a full digest of the opinions and practice of the principal and most recent writers on indigestion, both native and foreign. We recommend the volume most warmly to the attention of our readers.

THE ORGAN OF THE MIND.—There is no instance on record of mind being manifested without a brain, and idiotcy is inseparable from a brain of certain dimensions. Persons having a brain weighing but one and a half pound are invariably idiotic.—*Dr. Cowan.*

PROCEEDINGS OF THE ROYAL SOCIETY. 1841.

The Marquis of NORTHAMPTON, President, in the chair.

Memoir of the case of a gentleman born blind, and successfully operated upon in the eighteenth year of his age; with Physiological Observations and Experiments. By J. C. AUGUST FRANZ, M.D., M.R.C.S. Communicated by Sir BENJAMIN C. BRODIE, Bart., F.R.S.

THE young gentleman who is the subject of this memoir had been affected from birth with strabismus of both eyes; the right eye was amaurotic, and the left deprived of sight by the opacity both of the crystalline lens and of its capsule. At the age of seventeen, an operation for the removal of the cataract of the left eye was performed by the author with complete success. On opening the eye for the first time, on the third day after the operation, the patient described his visual perception as being that of an extensive field of light, in which everything appeared dull, confused, and in motion, and in which no object was distinguishable. On repeating the experiment two days afterwards, he described what he saw as a number of opake watery spheres, which moved with the movements of the eye, but when the eye was at rest remained stationary, and their margins partially covered one another. Two days after this the same phenomena were observed, but the spheres were less opake and somewhat transparent; their movements were more steady, and they appeared to cover each other more than before. He was now for the first time capable, as he said, of looking through these spheres, and of perceiving a difference, but merely a difference, in the surrounding objects. The appearance of spheres diminished daily; they became smaller, clearer, and more pellucid, allowed objects to be seen more distinctly, and disappeared entirely after two weeks. As soon as the sensibility of the retina had so far diminished as to allow the patient to view objects deliberately without pain, ribands differently coloured were presented to his eye. These different colours he could recognise, with the exception of yellow and green, which he frequently confounded when apart, but could distinguish when both were before him at the same time. Of all colours, grey produced the most grateful sensation: red, orange, and yellow, though they excited pain, were not in themselves disagreeable; while the effect of violet and of brown was exactly the reverse, being very disagreeable, though not painful. Brown he called an ugly colour; black produced subjective colours; and white gave rise to a profusion of *muscæ volitantes*. When geometrical figures of different kinds were offered to his view, he succeeded in pointing them out correctly, although he never moved his hand directly and decidedly, but always as if feeling with the greatest caution. When a cube and a sphere were presented to him, after examining these bodies with great attention, he said that he saw a quadrangular and a circular figure, and after further consideration described the one as being a square, and the other a disc, but confessed that he had not been able to form these ideas until he perceived a sensation of what he saw in the points of his fingers, as if he really touched the objects. Subsequent experiments showed that he could not discriminate a solid body from a plane surface of similar shape; thus a pyramid placed before him, with one of its sides towards his eye, appeared as a plane triangle.

Two months after the above-mentioned operation, another was performed on both eyes, for the cure of the congenital strabismus, by the division of the tendons of the recti interni muscles, which produced a very beneficial effect on the vision of the left eye; and even the right eye, which had been amaurotic, gained some power of perceiving light, and, from being atrophied, became more prominent. Still it was only by slow degrees that the power of recognising the true forms, magnitudes, and situations of external objects was acquired. In course of time, the eye gained greater power of converging the rays of light, as was shown by the continually increasing capacity of distinct vision by the aid of spectacles of given powers.

On the Fossil Remains of Turtles discovered in the Chalk Formation of the South-East of England. By GIDEON ALGERNON MANTELL, Esq., LL.D., F.R.S.

In this paper the author gives a description, accompanied with drawings, of a remarkable fossil turtle, referrible to the genus *emys*, and named from its discoverer, Mr. Benstead, the *emys Benstedi*, which has been lately found in a quarry of the lower chalk of Kent, at Burham, which is situated near the banks of the Medway, between Chatham and Maidstone. The specimen discovered consists of the carapace or dorsal shell, six inches in length, and nearly four inches in breadth, with some of the sternal plates, vertebræ, eight ribs on each side of the dorsal ridge, a border of marginal plates, and one of the coracoid bones. It is adherent to a block of chalk by the external surface of the sternal plates. The marginal plates are joined to each other by finely-indented sutures, and bear the impress of the horny scales or tortoise-shell, with which they were originally covered. The expanded ribs are united together throughout the proximal half of their length, and gradually

taper to their marginal extremities, which are protected by the plates of the osseous border. Mr. Bell considers the species to which it belonged as being closely allied in form to the common European emys, and as possessing a truly fluviatile or lacustrine character. The plates of the plastron, however, as also the coracoid bone, resemble more the corresponding bones of marine than of fresh-water turtles.

Researches tending to prove the Non-vascularity of certain Animal Tissues, and to demonstrate the peculiar uniform mode of their Organisation and Nutrition. By Joseph Toynbee, Esq. Communicated by Sir Benjamin C. Brodie, Bart., F.R.S.

In the introduction to this paper, the author first speaks of the process of nutrition in the animal tissues which are pervaded by ramifications of blood-vessels; pointing out the circumstance, that even in them there is a considerable extent of tissue which is nourished without being in contact with blood-vessels. The knowledge of this fact leads us to the study of the process of nutrition in the non-vascular tissues; which tissues he divides into the three following classes; namely, first, those comprehending articular cartilage, and the cartilage of the different classes of fibro-cartilage. Under the second head he comprises the cornea, the crystalline lens, and the vitreous humour; and, under the third, he arranges the epidermoid appendages; viz., the epithelium, the epidermis, nails, and claws, hoofs, hair, and bristles, feathers, horn, and teeth.

The author then proceeds to show that the due action of the organs, into the composition of which these tissues enter, is incompatible with their vascularity. In proof of the non-existence of blood-vessels in these tissues, he states that he has demonstrated, by means of injections, that the arteries, which previous anatomists had supposed to penetrate into their substance, either as serous vessels, or as red blood-vessels too minute for injection, actually terminate in veins before reaching them; he also shows that around these non-vascular tissues there are numerous vascular convolutions, large dilatations, and intricate plexuses of blood-vessels, the object of which he believes to be to arrest the progress of the blood, and to allow a large quantity of it to circulate slowly around these tissues, so that its nutrient liquor may penetrate into and be diffused through them. The author states that all the non-vascular tissues have an analogous structure, and that they are composed of corpuscles, to which he is induced to ascribe the performance of the very important functions in the process of their nutrition, of circulating throughout, and perhaps of changing the nature of the nutrient fluid which is brought by blood-vessels to their circumference. The author then brings forward facts in proof of the active and vital properties of these corpuscles, and concludes his introduction by stating, that it appears to him that the only difference in the mode of nutrition between the vascular and the non-vascular tissues is, that, in the former, the fluid which nourishes them is derived from the blood that circulates throughout the capillaries contained in their substance; whilst, in the latter, the nutrient fluid exudes into them from the large and dilated vessels that are distributed around them; and that in both classes, the particles of which the tissues are composed derive from this fluid the elements which nourish them.

The author then enters on an examination of the structure and mode of nutrition of the several tissues of each of these three classes. In considering the first class, he commences with articular cartilage, which he describes at great length in the various stages of its development, and at the different periods of life. He gives in detail the account of numerous dissections of the ovum and fœtus illustrating the first stage, during which he shows that no blood-vessels enter into the substance of any of the textures composing a joint; but that the changes its component parts undergo are effected by the nutrient fluid from the large blood-vessels, by which, at this stage, each articulation is surrounded. In the second stage of the development of articular cartilage, the author shows, by numerous dissections, the process by which the blood-vessels are extended into the substance of the epiphysal cartilage, and converge towards the attached surface of articular cartilage, and how, at the same time, blood-vessels are equally prolonged over a certain portion of its free surface. He shows that none of these blood-vessels enter the substance of the articular cartilage, and he points out that in them the arteries become continuous with the veins; first, by their terminating in a single vessel, from which the veins arise; secondly, by their forming large dilatations from which the veins originate; and, lastly, they become directly continuous with the veins in the formation of loops of various characters. In the third stage, that which is exhibited in adult life, the epiphysal cartilage is converted into osseous cancelli. These contain large blood-vessels, which are separated from the articular cartilage by a layer of bone composed of corpuscles; and the author believes that the principal source of nutrition to this tissue is the nutrient fluid which exudes into it from these vessels, by passing through the articular lamellæ just noticed. The free surface of adult articular cartilage is nourished by vessels which pass to a slight extent over it. The author points out the presence of fine tubes which pervade the attached portion of adult articular cartilage, to which he ascribes the function of trans-

mitting through its substance the nutritive fluid derived from the vessels of the cancelli. He also advances the opinion that the articular cartilage becomes thinner during the whole of life, by being gradually converted into bone.

Fibro-cartilage constitutes the second tissue of the first class. The author first enters upon an examination of its structure; and in order to arrive at some definite conclusions on this subject, whereon anatomists of all ages have so much differed, he made numerous dissections of fibro-cartilages in the different classes of animals at various periods of their development, the results of which he details. He arrives at the conclusion that this tissue is composed of cartilaginous corpuscles and of fibres; the latter preponderating in adult life, the former in infancy; and that during life the corpuscles are gradually converted into fibres. He enters at length into the question of the vascularity of these cartilages; and from a careful study of many injected specimens of man and animals at various periods of their development, the particular results of which he relates, he believes that blood-vessels are contained only in their fibrous portion, and have the function of nourishing that which is cartilaginous, and which, on account of its being subject to compression and concussion, does not contain any.

Among the second class of extra-vascular tissues, the cornea is first treated of; and its structure is described as being very lax, and as containing corpuscles only in a small quantity. The opinions in favour of its vascularity are combated; and it is shown that the blood-vessels which converge to its attached margin, and which are the principal source of the fluid that nourishes it, are large and numerous, and that at the circumference of this tissue the arteries, without any diminution of their calibre, return in their course, and become continuous with the veins. A second set of vessels, devoted to the nutrition of the cornea, is also described; they extend to a short distance over the surface of the tissue, but do not penetrate into its substance.

The crystalline lens is described as being composed of corpuscles, of which the radiating fibres are constituted. The arteria centralis retinæ is described as ramifying over the posterior surface of the capsule, where it forms large branches; these pass round the circumference of the lens, and reach its anterior surface, at the periphery of which they become straight: the arteries terminate in loops frequently dilated, and become continuous with the veins. With respect to the vascularity of the vitreous humour, the author states that although many anatomists have, in general terms, represented the arteria centralis retinæ as giving off, in its course through this organ, minute branches into its substance, still those who have paid especial attention to the subject have not been able to find such vessels. He believes that the nutrition of this structure is accomplished by the fluid brought to its surface by the ciliary processes of the choroid, which fluid is diffused with facility through its entire substance by means of the corpuscles of which its membrane is composed, assisted by the semifluid character of the humour.

The third class of extra-vascular tissues comprehends the epidermoid appendages. The author describes them all as composed of corpuscles, which are round and soft where they are in contact with the vascular chorion, compressed and flattened where they are farther removed from it. He points out, in the substance of the hoof of the horse, the existence of fine canals, which he supposes to conduct fluid through its mass; and he states that the perspiratory ducts of the human subject possess a structure analogous to the spiral vessels of plants. The author describes each of the tissues of this class at length, and shows that the various modifications presented by the vascular system with which each is in contact, have the sole object of enabling a large quantity of blood to approach and circulate slowly around them. He also points out, in connection with this subject, the remarkable vital properties which are possessed by these non-vascular tissues.

In concluding this paper, the author states that his object has been to establish as a law in animal physiology, that tissues are capable of being nourished, and of increasing in size, without the presence of blood-vessels within their substance. He shows the analogy which is presented between the extra-vascular animal and the extra-vascular vegetable tissues. He expresses a hope that the application to surgery of the above law, with reference to the prolongation of blood-vessels into the extra-vascular tissues during disease, and to pathology in the investigation of the nature of morbid structures, particularly of those classes which contain no blood-vessels, will be not devoid of interest, and will be productive of some advantage.

On the Anatomy and Physiology of certain Structures in the Orbit, not previously described. By J. M. Ferrall, Esq., M.R.I.A. Communicated by Sir Benjamin C. Brodie, Bart., F.R.S.

The author describes a distinct fibrous tunic, which he terms the *tunica vaginalis oculi*, continuous with the tarsal cartilages and ligaments in front, and extending backwards to the bottom, or apex of the orbit; thus completely insulating the globe of the eye, and keeping it apart from the muscles which move it. The eyeball is connected with this fibrous investment by a cellular tissue, so lax and delicate as to permit an easy and

gliding motion between them. The use which the author assigns to this tunic is that of protecting the eyeball from the pressure of its muscles while they are in action. This tunic is perforated at its circumference, and a few lines posterior to its anterior margin, by six openings, through which the tendons of the muscles emerge in passing to their insertions, and over which, as over pulleys, they play in their course. A consequence of this structure is, that the recti muscles become capable of giving rotatory motions to the eye without occasioning its retraction within the orbit, and without exerting injurious pressure on that organ. In those animals which are provided with a proper retractor muscle, the recti muscles are, by means of this peculiar mechanism, enabled to act as antagonists to that muscle.

ON THE

IMPULSIVE FEELING

OF

PRECIPITATING THE BODY FROM A HEIGHT.

To the Editor of THE LANCET.

SIR:—There is one very striking feature in phrenology, and that is its utility; and in no respect have its advantages been more apparent than in its elucidation of mental phenomena, which had been theretofore enshrouded in obscurity, or of which the explanations were vague and inconclusive, as mere random-guesses must ever be. Thus, when the cause of insanity was shown to consist in an over-excited or partially-diseased brain, how much was the morbid mentalisation thereby occasioned divested of the horror by which it had been regarded, and how speedily was the employment of the appropriate remedies suggested. There are, however, mental phenomena still enveloped in mystery; and to the explanation of which nought is competent, save phrenology, although it has yet to be applied.

Amongst the cerebral phenomena which have occasioned much discussion, there is one most startling in its nature and accompaniments; I refer to an impulse experienced by many persons when they look over a precipice, or out of a window, to eject themselves. The commonness of the case renders it unnecessary to cite any instances; the truth of the statement will be immediately recognised, for the family circle of most persons can supply examples, and, doubtlessly, suicide has been consequent on the affection. But when an explanation is desired, the reply is unsatisfactory, for the origin of the affection is ascribed to "weakness of nerve." But if, in prosecution of our inquiries, we ask in what does "weakness of nerve" consist, and why should it generate so singular a propensity? we find that our inquiries have ended as they began, in entire ignorance; we must, therefore, seek for another explanation, if we desire one which is consistent with reason, and consonant with fact.

On investigating the nature of the phenomena presented, it will be found that they vary; thus, although all the persons who speak of the feeling indicate the existence of the suicidal impulse, yet in some it occurs when they stand beside a window: in others it is never evolved unless they look over a precipice; and while in many persons the affection is accompanied by nausea, in most dizziness is alone produced. Further, it will be found that woman is most subject to the affection, whilst in man it is of rare occurrence. Amongst the mechanic class, such as bricklayers and carpenters, whose avocations require that they should possess the power of preserving equilibrium at great heights, we can find no traces of the affection. I have found also that persons who are much subject to sea-sickness are most liable to the affection.

From every inquiry I am indisposed to consider that the affection is really an incentive to suicide. We know what fear can do—how it can exaggerate internal impulses and external objects; and hence, if the basis of the affection be fear, it is strictly logical to conceive that the customary effect, misconception of the true emotion, will be thereby produced. And besides this, I cannot conceive it to be probable that persons can desire to precipitate themselves from an eminence merely because they look over it, to whom such an idea does not occur on other occasions, or who would regard the very conception with horror.

After some investigation of the subject, and the examination of many cases, I am induced to consider that the affection is not one of those which is produced by a morbid physical system, and which would not occur were it in a normal state; but that the affection is strictly cerebral, and dependent upon the existence of a specific cerebral organisation. Many facts have been collected which prove that there is an inherent instinct which produces fear of physical evil, and that, being a primitive faculty, it has an assigned cerebral locality. This organ is called cautiousness. There is also an intellectual organ called weight, whose province it is to impart a *practical* knowledge of gravitation, and thus to confer the power of regulating the movements in accordance with its requirements. The operation of this organ is most requisite when persons are looking over from a great height; for if it be feebly developed there is a liability to loss of equilibrium.

Now, I have found in persons who are liable to the affection, a large endowment of

cautiousness and a small development of the organ of weight; and as I am unacquainted with any case, where the feeling has been evolved, where this cerebral organisation was not presented, and finding further that its liability to recurrence, and the intensity of the affection, varied with the degree in which these organs were developed, I consider that I am justified in ascribing the phenomenon to the influence of an active cautiousness upon a deficient weight. Of the efficiency of the organisation developed to generate the affection there can be no doubt. The intellect cognises the physical position, and a floating and indefinite idea is presented of accidents which have occurred in similar circumstances. The organ of cautiousness becomes thereby excited into morbid activity; and, as the organ of weight, the only safeguard against the proximate danger, feels its incompetence to preserve the required balance, cerebral dizziness and consternation ensue; and the *fear* of death becomes exaggerated into the *desire* for death; and the anticipated consequences would most assuredly occur, did not the intellect assume sufficient power to remove the individual from the dangerous locality.

It will be perceived, if my explanation of the affection be correct, that much of the mystery and terror by which it has been enveloped is removed. Thus, by analysing the phenomenon, and bringing it within the category of morbid effects whose causes are known, the physician is enabled to quiet the apprehensions of persons who are subject to the affection, and whose alarm is at present increased by the mystery by which it is accompanied; and, as this is a disease for which the "patient must minister unto himself," the knowledge of its cause, and the course of action thereby suggested, will lessen the liability to any dangerous result.

I am, Sir, yours truly,

E. J. Hytche.

12, Brunswick Terrace, Islington,
August, 1841.

POSITIVE PRACTICE IN ENGLAND.

There must be something rotten in our state.

To the Editor of The Lancet.

Sir:—I am induced to make these remarks, from constantly hearing of mortality in a village from fever. Now, as I have never lost a case of fever where I have had the sole management of the case, methought the black fever, or the white (at the close), had made its appearance. I being "a stranger, whom they knew nothing of," the patients did not avail themselves of my experience; however, some few found me out; their cases yielded to the simplest mode of treatment. One case was typhus: I prescribed a few Seidlitz powders, with a few drops of antimonial wine; and acted upon the secretions still further by calomel and jalap. The second case was an intermittent, high delirium, &c.: followed the same treatment. Called a few days after, both better; in a week, convalescent. Now, how were the other cases treated? One practitioner, "a quiet gentleman of the olden school," "sticks to camphor julep and nitre in the first and second stage; but as soon as prostration appears, takes the bull by the horns, by giving ammonia and the aromatic confection largely."

You may smile, Mr. Editor, but this vile, this unpathological treatment I know to be the usual routine of the practitioners in England of the olden school, and is still held orthodox by many of their successors!

What is fever—but the development of nervous injury: the grand magician of life is paralysed; morbid secretion and morbid assimilation its results; depression or collapse and excitement its consequences; and the whole train of symptoms its adjuncts. This is my pathology of all diseases and disordered action.

The second practitioner "is a beardless youth," who looks upon fever and inflammation as a monster, that must be dispatched by monstrous treatment. Disease is a monster, but it is easier tamed and led than forced: you may knock it down with a sledge-hammer, and your patient with it, never to rise again. If practitioners would study Smith's work on Fever, for its morbid effects; Billing, for the philosophy of disease;—and for the treatment opportune, consult their own understandings, they would not deprive so many of their birthright "to threescore years and ten."

The effects of disease are morbid assimilation; its seat is determined by predisposition; its cause must be looked for in a neuralgia! There are, therefore, three indications—correct the morbid secretions, "lessen nervous irritation," and equalise arterial action. Thus disease, whether in the lungs, as consumption; or in the glands, as in scrofula; or in the kidneys, as in diabetes; or in dropsies; or in the stomach, as in dyspepsia—all, all will yield, nay have yielded, in judicious hands to this treatment!

How is it, let me ask, that the medical practitioner, especially the Scotch dubs whose catholicon is ammonia, do not keep pace with medical science? Why does not the church of Rome with divinity? Answer me that, and I will tell you why Rhubarb Hall is behind the age; and why doctors stick to camphor julep and nitre! or send their patients out of the world gloriously drunk in typhus fever! or the beardless practitioner bleeds his patient, like calves, to death! and also what imposed the mental prostration, that has considered consump-

tion, scrofula, and diabetes incurable, among many other curable diseases. Believe me, Sir, your obedient servant,

EDWARD FLOSANCE, M.D.,
Late Physician to Military Hospitals, &c.
Wimborne, Aug. 7, 1841.

Every pauper case ought to have a paper stuck over his bed, where the treatment and observations should be inserted; and a general medical inspector appointed to every union, with magisterial authority; the medical reports of the unions are "a mere matter of form"—medical authority of their own (officers).

TESTS FOR ARSENIC.

To the Editor of THE LANCET.

SIR:—In the *Morning Chronicle* of the 30th ult., the editor quotes from a correspondent of the *Globe* some very imperfect account of the report of the "commission of the first chemists of France," which has unhesitatingly declared that the pretended proofs of metallic stains insisted upon by M. Orfila as infallible in the case of Madame Laffarge are altogether fallacious. I have often publicly anticipated (vide my "Letter to the President and Censors of the College of Physicians," in 1837) the injustice that has since been perpetrated by the blind obedience of law and medicine to the ancillary art of the chemist. You will only do me bare justice in allowing me to remind the public that in my translation of the "Pharmacopœia Londinensis," 1836, I pointedly remarked that chemists had not even agreed upon the grosser sensible qualities of arsenic, some describing it as tasteless, and others as acrid, austere, or pungent; and, furthermore, that in my cautional margin I stated that the zinc may produce the metallic stain in the experiment under Marsh's apparatus, without the presence of arsenic in the material tested. Years ago I said it, and judges, and coroners, and doctors, and jurors, have gone on trying and swearing *more usitato*. But now we have the report of a "*grande commission*." I remarked in the same work on the discrepant evidence touching the effects of prussic acid; and I said then, what I here repeat, that the medical practitioner ought to enter a witness-box with as much humility and singleness of heart as though he were about to take the sacrament. I believe that one-half, at least, of the tests sworn to with so much scientific gravity, are totally unfit to be taken as evidence where human life is at stake. The statement, however, that Orfila is lost in public opinion is incorrect. He is only taken down a peg (and he can very well bear it), along with all other toxicologists, and along with the art itself, which has long been walking on stilts to the manifest endangering of human life. I am, Sir, your obedient servant,

G. F. COLLIER.
32, Spring-gardens, Aug. 4, 1841.

EFFECT OF THE COLD SEASONS ON VEGETATION.

To the Editor of THE LANCET.

SIR:—A gentleman of high scientific reputation, who has paid considerable attention to the influence of our severer winters on vegetation, mentioned to me in conversation a few days ago, his impression, that in those localities which are esteemed most favourable to invalids, it would be found that plants receiving no protection generally sustain much less injury during severe winters (as, for instance, that of 1837-8), than in low and humid situations, though possessing a higher annual temperature.

A paper on this subject was printed in the annual report of the Royal Institution of South Wales, for 1838-9; and another, on the effects of the last winter, will appear in the report for the year 1840-41. As many of your readers may be in possession of similar notes, and able to furnish information of the effects of severe winters on the vegetation of their respective localities, I inclose a note from the gentleman alluded to, which may serve as a text for any comments which your correspondents may obligingly supply.

The interest and value of the inquiry will, I trust, procure for it a special notice in medico-topographical essays, and the insertion of this communication in an early number of THE LANCET. I am, Sir, your very obedient servant,

CHIRURGUS.

June 26, 1841.

"My dear Sir,—As some support for the conjecture which I mentioned to you, that the effects of a severe winter on certain evergreens may be taken as a test of the salubrity of the air, I have from my notes selected the effects of the winter of 1837-8, on the common bay-tree, in the following places, where temperature could not have occasioned the difference.

"Every bay was killed, or nearly so, in the immediate neighbourhood of London; but at Totteridge, on a dry, gravelly bank, ten miles distant, to which for better air invalids are said to be frequently sent, they were very slightly injured.

"About Norwich, Yarmouth, Windsor, Oxford, Birmingham, and Worcester, all the bays were killed, or nearly so; and they were less severely injured at Gloucester,

Cheltenham, Doncaster, Cambridge, Ipswich, Liverpool, and Southampton.

"In this neighbourhood (Swansea) they escaped without any injury whatever, and the following are the only other places in England, so far as my knowledge goes, at which they equally escaped:—Falmouth, Brighton, Malvern, Isle of Wight, and parts of the coast of Dorset. In Scotland they were generally killed, except in the Isle of Bute, which I have heard called the Scotch Montpelier, and there they were uninjured. Yours very truly.

"June 30, 1841.

"I cannot now refer to my Scotch notes; but if I recollect rightly, the curator told me that at the Glasgow garden not a single bay had been left alive; they suffered less at Edinburgh."

BREACH OF PROMISES IN ST. THOMAS'S HOSPITAL SCHOOL.

To the Editor of THE LANCET.

SIR:—Will you take some notice of the following *facts*:—Mr. Buxton, who was considered worthy of the botanical "prize" for the session of 1839, has as yet never received it; and Mr. Keal, the successful candidate of 1840, has likewise never received his "prize." This season there were two candidates in the field, with the understanding that the most proficient should have the prize, and that if the best man only answered four of the questions correctly, he should then be entitled to the prize, or, as the more experienced men would say, to the promise of it; but to the surprise of all, the most proficient of the two did not get even the promise: but *Mr. Cohen*, the botany lecturer (reader?) at St. Thomas's, promised him the honorary (!) certificate, which we are inclined to believe, from the result of former years, he will get, as it is but justice to Mr. Cohen to add, that he has always given the honorary certificate. But on what grounds Mr. Cohen declined giving the prize is at present a mystery; at all events, it is very clear that this decision is not in accordance with his promise. Perhaps Mr. Cohen will oblige one of his pupils for this session, by giving an explanation of the whole affair to all his class, and also to the public. I remain, Sir, yours obediently,

A STUDENT OF ST. THOMAS'S.

St. Thomas's Hospital, July 13, 1841.

STONE IN THE BLADDER.—A colonel of engineers, in the service of the East India Company, about thirty years ago, removed a stone from his bladder by files introduced through the urethra: the operation was very tedious, but it proves the possibility of the thing. Dr. Darwin described an apparatus which he conjectured might be used with this intention.—*Dr. Arnott's Essay.*

HOSPITALS.

TAXES (ASSESSED)—WINDOW DUTY.

From the "Justice of Peace," of Saturday, July 17, 1841, No. 22.

As it is obvious from your comments that you are in possession of all the cases on this subject, with the opinion of the judges, I would ask the favour of you, on behalf of charity, to answer the following questions:—

First. Are *hospitals*, which are maintained solely by voluntary contributions, to be charged to the window duty, under rule 8, or exemption 2, in schedule A, 48 Geo. 3, c. 55; 4 Geo. 4, c. 11, s. 2; and by 6 Geo. 4, c. 7, s. 1? If not exempt, are the windows to be charged a progressive duty, or 1s. 9d. a window?

Secondly. Are rooms used by governors, officers, patients, and visitors indiscriminately (such as board-rooms), to be charged with window-duty?

Thirdly. Are the sleeping-rooms of nurses and domestic servants (many of whom sleep in one room) to be charged with window-duty, and to whom?

Fourthly. Are kitchens, laundries, scullieries, and water-closets to becharged with window-duty, and to whom?

Fifthly. Are the persons chargeable with window-duty to be charged by *name*?

AN OLD SUBSCRIBER.

ANSWER.

First. We think *hospitals*, so maintained by voluntary contributions, are *exempt*. See *Assessed Tax Case* (1154).

Secondly. That a room so used is not a *distinct* chamber or apartment, nor an apartment *occupied* by such officers or servants respectively as required by the rule 1 of 48 Geo. 3, c. 55, and case 2 of that statute, and is, therefore, not liable.

Thirdly. Rooms thus slept in must, we consider, be deemed to be not *severally* occupied, and, therefore, not to be liable.

Fourthly. Such of these only as are for the exclusive use of and attached to the chambers or apartments severally occupied by the servants, &c. are, we consider, liable, and not those for the use of the *hospital*; and when chargeable, they should be charged by *name* to the person or persons in respect of whose chamber or apartment they are used.

Fifthly. It seems to us they should be. The 8th rule declares, that a chamber or apartment severally occupied shall be subject to the same duties as if an entire house, which shall be paid by the respective occupiers. Therefore, we think, they should be assessed.

APOTHECARIES' HALL.

The court of examiners of the Society of Apothecaries, on Wednesday last, made their annual report of their proceedings to the court of assistants, from which it appeared that, during the past year, 429 candidates had presented themselves for examination,—that of that number 363 had received a certificate of their qualification to practise, and 13 had been thought deserving of the especial commendation of the court for general proficiency in the subjects of examination.

Medical Reform.—A deputation of the Eastern Medical Association of Scotland had yesterday the honour of an interview with George Duncan, Esq., M.P. for Dundee, to solicit his support in aid of a reform of the medical institutions of the country. The honourable gentleman received the deputation most courteously, and after hearing an explanation of the wishes of the medical profession, promised his cordial assistance to advance so important and salutary a measure.—*Dundee Courier*, Aug. 3.

BOOKS RECEIVED.

The Cyclopædia of Practical Surgery, embracing a complete View of all the Departments in Operative Medicine. Edited by William B. Costello, M.D. Part IX. London: Sherwood and Co.

The Grave-yards of London; being an Exposition of the Physical and Moral Consequences inseparably connected with our Unchristian and Pestilential Custom of Depositing the Dead in the midst of the Living; with the Examinations of the Author upon this highly-important subject, before a Select Committee of the House of Commons. By George Alfred Walker, Surgeon, Author of "Gatherings from Graveyards, &c." London: Longman and Co. 1841. Pp. 46.

TO CORRESPONDENTS.

J. T. D. has been offending against the law for thirteen years; and the examiners, on confession of that fact, might prosecute him for the penalties. They would certainly require him to cease practice until he had complied with the terms of the Act,—but perhaps admit him to re-examination under the regulations which were in force at the time of his rejection. The documents would be useless in Edinburgh.

What need is there (adopting *Spectator's* own phrase) "to slay the slain?"

Were it of the slightest use to present to the notice of the institutions in question, the suggestions of *A Member*, they should be printed; but he may be assured that in not one of them would so much as a finger be wagged to carry his views, however reasonable, into effect.

The terms upon which *A Country Surgeon of 15 years' experience* quitted his last connection, or practice, are so imperfectly described, that we cannot attempt to advise him what course to adopt. All agreements would, to be held valid in a court of law, probably be required to have been made in writing; but his position, so far as we can understand it, does not seem to be very favourable to the views he entertains. He should take legal advice, personally, in order that his adviser may have the advantage of cross questioning him before risking an opinion on the case.

A correspondent proposes a handsome reward for the mesmerist who discovers and exposes anatomically to view "the structure which secretes the magnetic fluid, and the apparatus which eliminates it from the ends of the fingers, during the manipulations of the magnetiser;" or who, otherwise, will satisfactorily demonstrate the proposition, *ex nihilo aliquis fit*.

A Tyro in philosophy.—1. There is no settled doctrine amongst meteorologists on the subject. The late Sir William Herschell (astronomer royal) entertained the opinion that the moon, according to her position in relation to the sun and the earth, influenced the weather; and he constructed and published, forty years ago, a table of the phases and changes which he believed that his experience would justify him in consulting. 2 and 3. The exposure can have no such effects. None such, at any rate, have been verified.

A Subscriber.—We do not know that it is not on sale any where. Probably a similar apparatus may be obtained of any tradesmen who manufactures the shower-bath.

Erratum.—In the leading article of last week, p. 694, line 33, the word *new* should stand before the words "artifice or project," in order that the sentence should read thus, as it was originally written: "M. Delafontaine had better make preparations for feeding the credulity of the English public by some *new* artifice or project. *Mesmerism* has had its day."—Mesmerism itself is an artifice,—of the grossest kind. It is a *new* artifice or project that M. Delafontaine will need to substitute for the exploded tricks of mesmerism.

Errata in Mr. Murray's Paper.—Page 624, col. 1, 14th line from above, for "attacks" read *attack*; p. 625, col. 1, 1st line, after "in length three inches," add *in thickness one line*, omitting "and two lines;" 9th line from the top, after "passed over," add *the intestine*; same line, after "the peritoneal," add *tunic*; line 17th from above, for "striatum" read *strangulated*.